01-0366

Corporate Environmental Programs
General Electric Company
100 Woodlawn Avenue, Pittsfield, MA 01201

Transmitted *via Federal Express*

May 15, 2001

Bryan Olson
EPA Project Coordinator
EPA New England
One Congress Street, Suite 1100
Boston, MA 02114-2023

Re: GE-Pittsfield/Housatonic River Site
Building 71 and Hill 78 On-Plant Consolidation Areas (GECD200)
2001 Consolidation Activities

Dear Mr. Olson:

This letter summarizes the transfer and consolidation activities anticipated to be conducted in 2001 by the General Electric Company (GE) relating to the Hill 78 and Building 71 On-Plant Consolidation Areas (OPCAs), based on current information. As discussed herein, the anticipated activities include the consolidation of the materials currently stockpiled and covered within Buildings 33 and 65, as well as materials generated during remediation and demolition activities performed this construction season. A detailed summary of the activities and the anticipated implementation schedule is presented below.

Consolidation Activities

To date, GE has generated approximately 1,800 cubic yards (cy) of "non-regulated materials" (i.e., materials that contain less than 50 ppm polychlorinated biphenyls [PCBs] and also do not constitute hazardous waste under EPA's RCRA regulations) and approximately 3,000 cy of materials regulated under the Toxic Substances Control Act (TSCA) from the Upper ½-Mile Reach Removal Action. These materials have been generated since the last transfer of materials to the OPCAs in 2000. The materials are currently stockpiled and covered in Building 65 and two portions of Building 33 (the 33X and 33-North areas). As discussed in my February 12, 2001 letter to you, GE will transfer these materials to the Building 71 and Hill 78 OPCAs in 2001. Such transfer and consolidation will be conducted in accordance with the conditionally approved June 1999 *Detailed Work Plan for On-Plant Consolidation Areas* (Work Plan), as amended by GE's August 12, 1999 Addendum and modified by subsequent correspondence between GE and EPA (including GE's June 13, 2000 response to EPA comments and GE's letter of March 9, 2001).

In anticipation of transporting and consolidating the stockpiled materials into the Building 71 and Hill 78 OPCAs, GE has developed a Request for Proposal (RFP) document containing construction-related specifications and drawings. The RFP was distributed to prospective contractors on May 2, 2001, as part of the procurement process for selecting a remediation contractor to perform the consolidation activities. Attachment 1 to this letter contains pertinent sections of the RFP for your information. Specifically, it includes the interim filling and grading plans identifying how materials from the Upper ½-Mile Reach of the River will be placed and consolidated within the OPCAs during the first consolidation phase in 2001. Additional grading plans will be developed and forwarded to the EPA once the scope and magnitude of remediation and/or demolition projects to be completed this year are better defined. Also included in the RFP are construction-specific requirements for material placement within the OPCAs, including lift thickness, density and moisture control, and slopes.

Anticipated Schedule

Attachment 1 provides a general summary of the consolidation activities planned for the Building 71 and Hill 78 OPCAs for this construction season. As indicated above, the contractor selection process for choosing a qualified remediation contractor to perform these activities was initiated on May 2, 2001. GE anticipates that final contractor selection will occur in late May 2001, and that transfer/consolidation activities will commence shortly thereafter (e.g., in early June). At the present time, GE anticipates that the transfer of the materials currently stockpiled in the buildings and the consolidation of those materials at the OPCAs will be completed by June 30, 2001, with the following potential modification: GE is currently evaluating the desirability of demolishing Buildings 8 and 8E at the GE Plant within the next couple of months and using the OPCAs for consolidation of that building demolition debris. If GE decides to go forward with use of the OPCAs for this debris, it will shortly submit a plan to EPA regarding this effort. Such use of the OPCAs may affect the timing of completion of the transfer of the currently stockpiled materials to the OPCAs. In that event, GE will advise EPA of a revised completion date for the transfer and consolidation of such materials.

Future consolidation activities will be performed throughout the year, with the frequency and duration of the events contingent upon the amount of materials (e.g., river sediment and bank soils, demolition debris, etc.) generated from the Upper ½ Mile Reach and other areas of the Site. GE will keep EPA advised when we have more information regarding the types of such materials, the length of temporary storage for them, and the timetable for transfer of these materials for consolidation at the OPCAs.

Please contact me or John Novotny with any questions concerning this letter or the scope of the consolidation activities planned for the 2001 construction season.

Sincerely,

Andrew T. Silfer /mkr

Andrew T. Silfer, P.E.
GE Project Coordinator

ARY/meg
Attachment
U:\MEG\01\3081199.doc

cc: Tim Conway, Esq., EPA
Michael Nalipinski, EPA*
Holly Inglis, EPA
K.C. Mitkevicius, USACE
Dawn Veilleux, Weston, Inc.
Thomas Angus, DEP
Robert Bell, Esq., DEP
J. Lyn Cutler, DEP*
Alan Weinberg, DEP
Susan Keydel, DEP*
Betsy Harper, Esq., MA AG
Dale Young, MA EOEA
Rod McLaren, Esq., GE*
Michael Carroll, GE
John Novotny, P.E., GE*
Mayor Gerald S. Doyle
Michael Cartney, Pittsfield Generating Co.*
Chris Bednar, General Dynamics*
James Nuss, P.E., LSP, BBL*
James Bieke, Esq., Shea & Gardner*
Jeffrey Bernstein, Esq., Bernstein, Cushner & Kimmel*
Public Information Repositories

(* w/attachment)

Attachment 1

BLASLAND, BOUCK & LEE, INC. *engineers & scientists*

Request for Proposal
2001 OPCA Consolidation Activities

Request for Proposal

2001 OPCA Consolidation Activities

General Electric Company
Pittsfield, Massachusetts

May 2001

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

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SECTION 1.0 - GENERAL INFORMATION

1.1 INTRODUCTION

Your firm is invited to submit a proposal for the consolidation of materials, and related activities at the Hill 78 and Building 71 On-Plant Consolidation Areas (OPCAs) located on the General Electric Company (GE) plant property in Pittsfield, Massachusetts, in 2001. This Request for Proposal (RFP) addresses the consolidation of materials (e.g., soils, sediments, building debris, etc.) at the OPCAs that potentially contain polychlorinated biphenyls (PCBs) and other hazardous constituents. These materials have been, or will be generated as a result of ongoing environmental remediation projects performed by GE on the facility property and at nearby sites. During the consolidation activities, the selected Contractor will also be responsible for performing activities associated with maintaining the consolidation areas until demobilization from the OPCAs.

All activities associated with this project, including review of this RFP, your proposal, and any work set forth in this RFP shall be conducted in a confidential manner and should not be discussed or communicated in any manner to persons other than GE personnel without GE's prior written authorization.

Five copies of your proposal for the work identified in this RFP must be submitted to the following individuals:

Attention: Mr. John F. Novotny, P.E. (Three copies)
General Electric Company
100 Woodlawn Avenue
Building 11-250
Pittsfield, Massachusetts 01201
Telephone: (413) 494-3177
Facsimile: (413) 494-2700

Attention: Mr. William A. Rankin, P.E. (Two copies)
Blasland, Bouck & Lee, Inc.
6723 Towpath Road, P.O. Box 66
Syracuse, New York, 13214-0066
Telephone: (315) 446-2570 (x209)
Facsimile: (315) 449-4111

The deadline for submittal of proposals is 12:00 p.m. eastern standard time on **May 16, 2001.**

1.2 REQUEST FOR PROPOSAL ORGANIZATION

This RFP has been organized into four sections, which include the following:

Section 1.0 - General Information: Provides an overview of the activities to be performed and general information for the Contractor's bidding on the work described in this RFP.

Section 2.0 - Cost Proposal and Bid Form: Describes the format each Contractor shall use to present costs associated with the activities summarized in this RFP. This section also includes the Cost Proposal Bid Form which will be used to record all cost proposals and miscellaneous information associated with the activities summarized in this RFP.

Section 3.0 - Conditions of Work: Describes various conditions of work that are associated with the activities summarized in this RFP.

Section 4.0 - Materials and Performance Specifications: Includes Technical Specifications for acceptable levels of quality, and/or levels of performance for the materials of construction.

In addition, several attachments have been included to provide supplemental information. Attachments included in this RFP are as follows: Attachment 1 includes Technical Drawings for the work identified in this RFP; Attachment 2 provides the standard form for initiating a Change Order; Attachment 3 provides an example Daily Construction Activities Report; and Attachment 4 provides GE's Guidelines for Cleaning Incidentally PCB-Contaminated Equipment For Sale, Reuse, or Scrapping.

1.3 SCOPE OF ACTIVITIES

In general, the project will generally involve the following components:

- Preparation of various technical deliverables for submittal to GE;
- Performance of all necessary site preparation activities including, but not limited to the installation of access roads (including excavation and filling where necessary), erosion control measures, survey control, utility identification and protection, clearing of vegetation, and other site controls, as appropriate;
- Consolidation of materials within, and operation of, the Hill 78 and Building 71 OCPAs at various times throughout the year;
- Maintenance of daily and interim covers over the consolidated materials within the OCPAs;
- Performance of site restoration activities; and
- Preparation of Record Drawings.

1.4 INTENDED USE OF REQUEST FOR PROPOSAL

GE intends to use this RFP as a basis for selecting a Contractor for material consolidation and related activities at, as well as the operation of, the Hill 78 and Building 71 OPCAs in 2001. Prospective Contractors shall bear in mind that the consolidation of materials at the OPCAs is being performed in a phased approach, with the frequency and duration of consolidation "events" in 2001 contingent upon the generation of materials during other soil removal and building demolition activities being undertaken by GE. Contractors shall also note that the scope of this project does not include operation of the leachate collection system or any transport and disposal activities (as they relate to consolidation materials handling).

1.5 DEFINITIONS

The following terms, as they may occur in this RFP, will be mutually understood to have the following meaning:

"Air Monitoring Contractor" refers to the Contractor who is retained by GE to perform air monitoring activities related to the performance of the work contained in this RFP.

"Agencies" means the United States Environmental Protection Agency (USEPA) and the Massachusetts Department of Environmental Protection (MDEP), which are the regulatory agencies overseeing this project.

"Change Order" means a written order issued by or on behalf of GE to the Contractor authorizing an addition, deletion, or revision of the work, or an adjustment in the contract price or date of completion, issued after execution of the Contract. Either the Contractor or GE can initiate the change order process. The form for initiating a change order is included as an Attachment.

"Complete" means the proper completion of all work indicated in the Contract as determined by GE.

"Consolidation Areas" refers to the OPCAs at the GE Plant. The work described in this RFP pertains only to the consolidation and operation of portions of the two consolidation areas (i.e., the Hill 78 and Building 71 Consolidation Areas).

"Consolidation Material" means any soil, sediment, debris, or other material delivered to the consolidation areas (by others), for placement within the consolidation area. Consolidation material may contain PCBs and/or possibly other hazardous constituents. Such materials must be handled in accordance with the requirements of the Toxic Substance Control Act (TSCA), the Resource Conservation and Recovery Act (RCRA), Occupational Safety and Health Administration (OSHA) Standards, and all other applicable federal, state, and local requirements.

"Contract" or "Contract Document" consists of the following documents:

1. GE Contract Agreement
2. RFP
3. Technical Drawings
4. Addenda
5. Change Orders

"Contract Price" means the contract price set forth in the completed GE Contract Agreement.

"Contractor" means the party submitting a proposal, selected by GE, and ultimately entering into a Contract with GE for performance of the consolidation activities discussed in this RFP. Contractor also means any subcontractors employed by the Contractor.

"GE" means the General Electric Company, Pittsfield, Massachusetts.

"GE's Representative" is a representative(s) of GE who will serve as the liaison between the Contractor and GE. GE's representative(s) will be present at various times during the period that the work activities are performed. However, only the Project Coordinator (defined below) has the authority to execute the Contract and any change orders.

"Project Coordinator" means the following individual, who has the authority to execute the Contract and any Change Orders on behalf of GE: Mr. John F. Novotny, P.E.

"Substantial Completion" means completion of the work to a level at which all critical components of the work outlined in this RFP are completed and are operable/usable as determined by GE.

1.6 CONTRACTOR QUALIFICATIONS

GE may make such investigation, as it deems necessary, to determine the qualifications of the Contractor to perform the work; the Contractor will furnish to GE all information and data for this purpose as GE may request. GE reserves the right to reject any proposal if the evidence submitted by, or investigation of, such Contractor fails to satisfy GE that such Contractor is properly qualified to carry out the obligations of the Contract, and to complete the work contemplated therein. Conditional Bids will not be accepted.

Evidence of insurance must be submitted with the proposal. The minimum insurance requirements for the Contract are as follows:

(1) Worker's Compensation	Statutory
(2) Employer's Liability	$1,000,000 per each occurrence and $2,000,000 aggregate
(3) Automobile Liability	$1,000,000 per occurrence combined single limit for bodily Injury and Property Damage Liability

1.7 BONDS FOR PERFORMANCE AND LABOR AND MATERIALS PAYMENT

Prior to signing the Contract and within five days after the award of the Contract, respectively, GE will require the Contractor to furnish bonds as follows: (a) Covering the faithful performance of the Contract in the amount equal to one hundred percent of the Contract; and (b) Covering the payment of all obligations arising thereunder in the amount equal to one hundred percent of the Contract.

The surety on such bonds must be a duly authorized surety company satisfactory to GE and must include a certificate executed by an officer of the surety issuing the Bond stating that all premiums for the bond have been paid in full. ALL BOND PREMIUMS MUST BE PAID BY THE CONTRACTOR. These bonds will remain in force for a minimum period of twelve months after completion of all work by the Contractor.

1.8 PRE-BID MEETING AND SITE VISIT

A mandatory Pre-Bid Meeting and Site Visit will be conducted with prospective Contractors at 10:00 a.m. eastern standard time on **May 9, 2001.** As part of the Site Visit, prospective Contractors will have the opportunity to inspect both OCPAs and surrounding areas, as well as the stockpiles of materials awaiting consolidation within the OPCAs. With the exception of the Pre-Bid Meeting and Site Visit, prospective Contractors shall not, under any circumstances, walk, drive, or otherwise access the work sites without GE's authorization. Furthermore, prospective Contractors shall not contact the Agencies for any purpose whatsoever. Any requests for additional information or site visits, if desired, should be coordinated with GE's Project Coordinator at (413) 494-3177.

1.9 PROPOSAL INSTRUCTIONS

A completed proposal must include one original, signed Cost Proposal Bid Form. The Cost Proposal Bid Form is contained in Section 2.4 of this RFP, and all entries must be typed or filled in with ink. If the proposal is made by a corporation, the official corporation name must be given, the proposal signed by an authorized officer of the corporation, and the corporate seal affixed. If the proposal is made by a partnership, the official name as it appears on the Assumed Name Certificate must be given and the proposal signed by a partner. If the proposal is made by a sole proprietorship, the proposal must be signed by the individual

owner. Names and titles of all persons signing must be typed or printed below their signatures. All attachments, certifications, or acknowledgments attached to the proposal form must be executed in the same manner as the proposal.

In addition, the following items are also required to be submitted in response to this RFP:

- Contractor rates in accordance with General Information Section 1.11 - Contractor Rates;
- Original copy of Contractor's Insurance Certificate, dated one week prior to the submission of the Contractor's proposal;
- A list of proposed subcontractors in accordance with General Information Section 1.12 - Subcontractors; and
- Identification of source(s) of imported fill materials to be used (if any).

At its discretion, GE may consider informal any proposal not prepared and submitted in accordance with the provisions hereof and may reject any or all proposals. Any proposal may be withdrawn by GE prior to the deadline for submittal of proposals (or authorized postponement thereof). Any proposal received after the time and date specified will not be considered unless GE, in its sole discretion, decides otherwise.

At the time of the opening of proposals, it will be presumed that each Contractor has inspected the site, as well as read and is thoroughly familiar with this RFP. The failure or omission of any Contractor to examine any form, instrument, or document will in no way relieve any Contractor from any obligation in respect to its proposal.

1.10 PROJECT SCHEDULE

For the purposes of developing a proposal for the performance of this Contract, the Contractor should assume that the Contract for this project will be awarded on or about **May 23, 2001**, and that mobilization to the work site(s) shall occur by **May 29, 2001**.

Time is of the essence. The timeframe for completion of the initial consolidation activities outlined in this RFP (i.e., for the materials currently stockpiled) has been established by the Agencies. In light of this, a date of substantial completion for consolidation and tarping of the currently stockpiled materials in the Hill 78 and Building 71 OPCAs has been established as **June 30, 2001.**

The scope and order of magnitude of other consolidation activities outlined in this RFP are established by the performance of other remediation activities in Pittsfield currently being performed by GE. However, for purposes of determining a date of substantial completion, the Contractor shall assume that all other consolidation activities will be completed by the end of 2001. However, this timeframe may be changed by GE, based on weather conditions and/or other potentially limiting factors that may affect ongoing remediation activities and thus the generation of materials for consolidation at the OPCAs.

For the purposes of determining the date of Substantial Completion, certain site-specific restorations activities will be excluded. These activities are limited to seeding and other minor items not critical to the performance of the consolidation area. All other components of the work shall be completed for GE's determination of Substantial Completion. Those items excluded from the Substantial Completion determination shall be completed within two weeks after the date of Substantial Completion unless otherwise directed by GE. GE will withhold payment until such time that all work activities have been completed to

the satisfaction of GE. In accordance with Section 3.7 of the Conditions of Work, the Contractor will be required to prepare and periodically update a project schedule.

1.11 CONTRACTOR RATES

In responding to this RFP, Contractors must provide their most current hourly labor rates and hourly, daily, weekly, and monthly equipment rental rates. These schedules will be used by GE as a basis for evaluating any contract price increases or decreases in response to change orders or out-of-scope services, when such work is approved by GE. In addition, as previously indicated, Contractors shall acknowledge that the labor rates and equipment rental rates submitted to GE will be valid through December 31, 2001.

1.12 SUBCONTRACTORS

The proposal must include a list of all subcontractors proposed for use in the work. This list will be considered in the evaluation of the proposals and will be deemed to be a condition of the Contract, and no addition of a subcontractor will be permitted without the prior approval of GE. GE's only contractual relationship, however, will be with the Contractor itself.

1.13 ADDENDA

No interpretation of the meaning of the RFP will be made orally. Requests for such interpretation must be addressed to GE, Attention: Mr. John F. Novotny, P.E., 100 Woodlawn Avenue, Building 11-250, Pittsfield, Massachusetts 01201, (413) 494-5024 (fax). To be given consideration, all requests must be received at the above address by 5:00 p.m. eastern standard time on **May 11, 2001**. Any and all such interpretations and any supplemental instructions will be in the form of written addenda, which will be sent to all holders of the RFP to be received no later than 5:00 p.m. eastern standard time on **May 14, 2001**. Failure of any Contractor to acknowledge receipt of any such addenda will not relieve said Contractor from any obligation under its proposal as submitted. All addenda so issued will become part of this RFP.

1.14 PRECEDENCE

In the case of identified discrepancies among any components of the RFP or the final Contract Documents, the Contractor will provide notice to GE. Unless otherwise directed, precedence among the components of the Contract Documents will be in the following order:

1. Change Orders;
2. GE's Contract Agreement;
3. Addenda (later dates taking precedence over earlier dates);
4. Conditions of Work;
5. Technical Drawings;
6. Cost Proposal Form and Bid Form;
7. General Information; and
8. Technical Specifications.

- END OF SECTION -

SECTION 2.0 - COST PROPOSAL AND BID FORM

2.1 INTRODUCTION

As compensation for performing the activities summarized in this RFP, GE will reimburse the selected Contractor in accordance with the terms in this section of the RFP, as well as the Contract Agreement to be executed between GE and the selected Contractor.

In completing the Cost Proposal Bid Form (Section 2.4), the Contractor acknowledges and states that all labor, equipment, materials, subcontractor fees, taxes, expenses, permits, and any other costs incurred by the Contractor and any subcontractors are included in the cost proposal for each cost proposal item, and that the cumulative costs of the separate cost proposal items represent all of the activities and materials provided or coordinated by the Contractor and any subcontractors. In addition, the Contractor acknowledges that the descriptions provided in this section are general and do not necessarily include all activities associated with a given cost proposal item. Other components of this RFP provide additional and/or appropriate details for executing this Contract. Also the selected Contractor is responsible for visiting the site and field verifying locations, depths, sizes, materials of construction, and any other relevant information related to existing structures affected by the proposed activities.

2.2 FORMAT

The remainder of this section is presented in two sections. The purpose and content of each section are briefly described as follows:

Section 2.3 - Cost Proposal: Describes the format of the requested cost proposal for the work, including a general description of the work activities to be included with each bid item.

Section 2.4 - Cost Proposal Bid Form: Includes the form on which the Contractor is to provide the following:

- The cost proposals for the various components related to the work of this RFP;
- The proposed subcontractor(s) and backfill source(s) to be utilized for the work; and
- Acknowledgment that all addendums have been received and authorization to execute the Cost Proposal Bid Form.

2.3 COST PROPOSAL

This section describes the cost proposal format and provides a summary of the various components of the work that are included under this RFP (and described in greater detail throughout this RFP). In general, the bid items for the work of this RFP include lump sum proposals to perform four different work tasks based on the anticipated scope and quantities provided in this RFP.

The bid for each cost item (to be filled in by the Contractor in Section 2.4) should be developed as a "stand-alone" cost. Any quantities provided in this RFP are for informational purposes only and should not be interpreted as "bid quantities." The Contractor shall perform a thorough inspection of the work sites to estimate quantities and developed a cost proposal. There should be no change in the project schedule, or

additional fees to complete the scope of work defined by this RFP, nor should there be any redundant fees among the various bid items. The Contractor should use the information presented below, as further detailed in other sections of this RFP (e.g., the Conditions of Work, Technical Specifications and Drawings, etc.), and as modified by any addenda, as a basis for cost proposal development.

Lump Sum Cost Items

The Contractor shall develop separate lump sum cost proposals for each of the four specified work tasks (i.e., Items A through D below). For each work task, the bids shall include all costs associated with the performance of the following work activities based on the scope of work and limits specified in this RFP. GE reserves the right to request additional unit cost detail or revision to the breakdown at any time during the project, including prior to the selection of a Contractor, and may request all documentation (e.g., spreadsheets, worksheets, tables, etc.) generated during the preparation of the lump sum cost proposals. At a minimum cost breakdowns must be clearly indicated for each bid item. The breakdown must include a complete list of work activities, unit costs, assumed quantities, and extended bid costs (determined by multiplying the unit cost by the assumed quantity). Sufficient detail must be provided to allow for payment modifications as discussed in Section 3.24. Costs presented in the breakdown (and in any revisions) must be equal to the total lump sum price for each bid item.

A. Pre-Mobilization Submittals

Prior to the initiation of any on-site activities, the selected Contractor will be responsible for the preparation of various submittals. These submittals include an Operations Plan (Section 3.4), Health and Safety Plan (Section 3.5), a Contingency Plan (Section 3.6), Work Schedule (Section 3.7), samples of backfill materials from proposed source locations (Section 3.28), and other submittals as specified in Section 3.0 of this RFP. These submittals will be developed by the Contractor based on the current site conditions and discussions with GE. Additional information regarding the scope of this work task, as well as the basis for developing a cost proposal is presented in Section 3.0 of this RFP.

B. Construction Support Activities

- This component includes all work performed prior to, during, and following construction activities, excluding those identified in Part A above. For office-based activities, this component includes, but is not limited to, the following:

- Attendance at all project meetings;

- Identification and acquisition of construction-related (i.e., non-environmental) permits that may be necessary during construction and/or restoration activities;

- Procurement and coordination of subcontractors (e.g., surveyors, landscapers, etc.) and equipment as necessary to perform the work;

- Restoration of any items disturbed by the performance of the work and not otherwise addressed by this RFP (e.g., parking areas, material and equipment staging areas, field trailer locations, etc.);

- Preparation of, and revisions to Work Schedules and other required documentation;

- Compliance with all applicable federal, state, and local regulations and requirements; and

- All other office and administration services necessary to support the Contractor's activities for the duration of the project.

This component also includes several support/operational/maintenance activities required of the Contractor during the execution of the Contract including, but not limited to, the following:

- Mobilization(s) and demobilization(s) of personnel, equipment, and materials to the work site;
- Provision of office equipment within the GE-provided field trailer for the duration of the project;
- Provision, service, and maintenance of a portable sanitary facility at the work site;
- Installation and maintenance of temporary access roads, gravel tracking pads, and equipment and materials staging/cleaning areas to support work activities;
- Construction of an equipment cleaning area consisting of an impermeable barrier sloped to a collection sump;
- The Contractor must not track soil, mud, or dust on to private/public roadways (i.e., the Contractor must utilize gravel tracking pads, access roads, and clean tires of transport vehicles prior to exiting the work site, etc.);
- Installation and maintenance of temporary fencing and other site security measures;
- Clearing of vegetation as required to access the work area(s) and perform the work;
- Abandonment, removal, relocation, and/or replacement of structures (e.g., tarps, ditches, fences, etc.) as required to perform the work;
- Provision of erosion and sedimentation control measures and associated monitoring/maintenance;
- Coordination of all site activities with the GE Project Coordinator, GE's Representative(s), the Air Monitoring Contractor, and any Agency Representatives;
- Health and safety monitoring and control measures;
- All required survey measurements;
- Noise and dust control measures;
- Protection of existing structures (e.g., water supply wells, monitoring wells, manholes, fencing, etc.) not effected by the work;
- Safely directing transport vehicles to and from city streets onto the work site;
- Delivery, set-up, and use of a personnel cleaning area;
- All other labor, equipment, materials, subsistence, and related activities associated with daily construction activities (including maintenance operations);

- On-site delivery and placement of clean, GE-approved materials to achieve the specified grades and elevations for site restoration; and

- Restoration of surface features, including parking lots, grass areas, materials and equipment staging areas, fences, and other surface features to their original locations and elevations, proposed final configurations, or to requested and GE-approved alternate locations and elevations. The Contractor will be responsible for ensuring that all surfaces are restored to prevent surface water ponding and to promote positive surface drainage.

C. Material Consolidation Within the Hill 78 OPCA

This component includes the following items:

- Provision and operation of labor, equipment, and materials necessary to consolidate and manage materials off-loaded by others within the Hill 78 OPCA in 2001. Materials are expected to generally consist of soils and sediments excavated from the Housatonic River. A portion of these materials is currently stockpiled and covered in Building 33. Contractors shall develop their own volume estimate of the material stockpiled in the buildings during the bidding period. However, the volume estimates of the stockpiled materials should include a contingency of up to 250 cy to account for any additional placement of materials within the buildings following Contractor bid submittal and prior to Award of Contract and subsequent material transport to the OPCA. The remainder of materials generated during excavation activities at the Housatonic River will be generated throughout the remainder of the year. These additional materials may be stockpiled within the buildings pending transfer to the Hill 78 OPCA. In addition to the materials generated during excavation activities at the Housatonic River, demolition debris generated during building demolition activities anticipated for this year at the facility may also be transported to the OPCA in 2001. Depending on several factors, these materials may have to be immediately transferred to the OPCAs upon their generation (i.e., stockpiling at the removal area may not be an option). Contractors shall have equipment and manpower available at the OPCA (within 3 days notice by GE) for consolidation of any material in the OPCA. As an indicator regarding the potential scope of Hill 78 consolidation activities, the Contractor may assume that an additional 5,900 cy of material (beyond that currently stockpiled in Building 33) may be subject to consolidation in 2001. All loading, transporting to the OPCA, and off-loading of these materials will be performed by others under separate contract with GE;

- Moisture conditioning (e.g., aerating, wetting, etc.) of soil materials delivered to the OPCA as necessary to provide an optimum condition for compaction. Materials delivered to the OPCA will not contain free liquids. The Contractor is required to condition the material such that a firm, stable surface, capable of supporting construction equipment is developed following compaction;

- Segregation (for minimizing voids and optimizing compaction), placement, and compaction of consolidation materials received by others in the area designated on the Technical Drawings. Compaction shall be performed using either a vibratory sheepsfoot or smoothdrum roller, with five passes performed for each lift of consolidation material placed (lifts shall not exceed one foot in thickness). Slope angles shall not exceed 3 Horizontal to 1 Vertical (3:1). All materials delivered to the OPCA larger than one foot in diameter shall be placed within the material lift such that the object is fully supported on all sides (i.e., no voids exist around the object). No stacking or nesting of large objects will be allowed. Any rubber tires shall be consolidated within an area at least 25 feet from the edge of the OPCA perimeter;

- Installation and anchorage of a polyethylene cover (i.e., daily cover) over all exposed consolidation materials when active consolidation activities are not occurring;

- Implementation of erosion, noise, and dust control measures as required;

- Construction of additional equipment cleaning areas (as necessary);

- Inspection and cleaning of all transport vehicles prior to exiting the site;

- Cleaning of all equipment that contacts the consolidation materials prior to its use in a "clean" area and prior to its removal from the site;

- Installation and maintenance of polyethelyne cover after each consolidation period;

- Inspection and maintenance/repair of the consolidation areas and any mitigating measures, including erosion control items, daily and interim covers, etc., during the course of the Contract; and

- Provision of daily activity logs (provided to GE on every Monday for the prior week's activities), including the following information:

  - Date
  - Weather and temperature
  - Description of the activities performed
  - Listing of the equipment and labor used
  - Estimate of the amount of materials consolidated on that date based on the number of trucks
  - Description of the materials (including type, composition, and source) consolidated on that date
  - Description of any problems encountered, and the mitigative measures implemented

  An example of a Daily Construction Activities Report is included in Attachment 3.

D. Material Consolidation Within the Building 71 OPCA

This component includes the following items:

- Provision and operation of labor, equipment, and materials necessary to consolidate and manage materials placed within the Building 71 OPCA in 2001. Materials are expected to generally consist of soils and sediments excavated from the Housatonic River. A portion of these materials is currently stockpiled and covered in Buildings 33X and 65. Contractors shall develop their own volume estimate of the material stockpiled in the buildings during the bidding period. However, the volume estimates of the stockpiled materials should include a contingency of up to 250 cy to account for any additional placement of materials within the buildings following Contractor bid submittal and prior to Award of Contract and subsequent material transport to the OPCA. The remainder of materials generated during excavation activities at the Housatonic River will be generated throughout the year. These additional materials may be stockpiled within the buildings pending transfer to the Building 71 OPCA. In addition to the materials generated during excavation activities at the Housatonic River, demolition debris generated during building demolition activities anticipated for this year at the facility may also be transported to the OPCA in 2001. Depending on several factors, these materials may have to be immediately transferred to the OPCA upon their generation (i.e., stockpiling at the removal

area may not be an option). Contractors shall have equipment and manpower available at the OPCA (within 3 days notice by GE) for consolidation of any material in the OPCA. As an indicator regarding the potential scope of Building 71 consolidation activities, the Contractor may assume that the additional 5,000 cy of material (beyond that currently stockpiled in Buildings 33X and 65) may be subject to consolidation in 2001. All loading, transporting to the OPCA, and off-loading of these materials will be performed by others under separate contract with GE;

- Moisture conditioning (e.g., aerating, wetting, etc.) of soil materials delivered to the OPCA as necessary to provide an optimum condition for compaction. Materials delivered to the OPCA will not contain free liquids. The Contractor is required to condition the material such that a firm, stable surface, capable of supporting construction equipment is developed following compaction;

- Segregation (for minimizing voids and optimizing compaction), placement, and compaction of consolidation materials to the grades shown on the Technical Drawings. Compaction of the material placed within the consolidation area shall be performed using either a vibratory sheepsfoot or smoothdrum roller, with five passes performed for each lift of consolidation material placed (lifts shall not exceed one foot in thickness). All materials delivered to the OPCA larger than one foot in diameter shall be placed within the material lift such that the object is fully supported on all sides (i.e., no voids exist around the object). No stacking or nesting of large objects will be allowed. Any rubber tires shall be consolidated within an area at least 25 feet from the edge of the OPCA perimeter;

- Installation and anchorage of a polyethylene cover (i.e., daily cover) over all exposed consolidation materials when active consolidation is not occurring (note: the existing tarpaulins, polyethylene liners, and tires currently being used at the OPCA can be reused as daily covers [clean side up]);

- Implementation of erosion, noise, and dust control measures as required;

- Construction of a gravel equipment cleaning pad within the Building 71 OPCA for cleaning all equipment that has been in contact with consolidation materials prior to its use in a "clean" area, and prior to its removal from the site;

- Inspection and cleaning of all transport vehicles prior to exiting the site including management (excluding disposal) of any cleaning fluids generated by this process;

- Installation and maintenance of polyethylene cover after each consolidation period;

- Inspection and maintenance/repair of the consolidation areas and any mitigating measures, including erosion and water control items, daily and interim covers, etc.; and

- Completion of daily activity logs (provided to GE on every Monday for the prior week's activities), including the following information:

  - Date
  - Weather and temperature
  - Description of the activities performed
  - Listing of the equipment and labor used
  - Estimate of the amount of materials consolidated on that date (based on the number of trucks, if applicable)

- Description of the materials (including type, composition, and source) consolidated on that date
- Description of any problems encountered, and the mitigative measures implemented

Unit Price Cost Item

E. Interim Soil Cover Installation

If consolidation activities extend beyond October 15, or at GE's direction, the polyethene cover system used actively during the consolidation activities (i.e., tarps) shall be utilized as the interim cover over the winter months. However, GE may opt to install an interim soil cover over the Hill 78 and Building 71 OPCAs at the end of consolidation activities. If used, the interim soil cover would include the installation (including seeding and mulch), and all necessary monitoring and maintenance, of a 3-inch-thick layer of GE-approved clean soil over the consolidation materials at the completion of the consolidation activities, or at GE's direction.

Costs indicated on the Cost Proposal Summary Form should include all work described in the Technical Specifications, shown on the Technical Drawings, indicated in this RFP, or otherwise required to meet the intent of the project. The above work descriptions are provided solely to provide additional information regarding the general scope and magnitude of the project. The descriptions do not necessarily encompass all construction activities necessary to complete the work described in this RFP. Additional work activities specified elsewhere in this RFP, required in the Technical Specifications, depicted on the Technical Drawings, or otherwise necessary to complete the construction shall be considered when developing the cost proposal.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

Contractor: _____ **Date:** _____

2.4 COST PROPOSAL BID FORM

Proposed Subcontractor(s) and Soil Fill Source(s)

The Contractor proposes to use the subcontractor(s) and soil fill source(s) identified below for the performance of this work. No substitutions may be made without prior written approval from GE. (Use additional sheets as necessary.)

Subcontractor	General Work Activities

Contractor:_____ **Date:**_____

Proposed Soil Fill Source(s)

_____

_____

_____

Contractor Acknowledgment and Authorization of Cost Proposal

The Contractor acknowledges that it has examined the RFP (Contract Documents) and has attended the Pre-Bid meeting and Site Visit. By signing this Cost Proposal Bid Form, the Contractor acknowledges that it and any subcontractors are appropriately qualified and licensed to perform the work, understand all of the conditions of work, and waive all right to plead any misunderstanding regarding the same.

The Contractor acknowledges the receipt of the following written addenda issued following receipt of the RFP (enter "none" if applicable).

Addendum No.	Addendum Date	General Subject

As stated above, the selected Contractor will be bound by all issued Addenda, whether or not acknowledged herein. In submitting the Cost Proposal Bid Form, the Contractor acknowledges and warrants that the cost proposal is for all of the work described herein, and the cost proposal entries (lump sum or other) cover and include full compensation, including all applicable local, state, and federal taxes to the Contractor for the performance of each obligation imposed by the Contract. The Contractor further acknowledges and agrees that the cost proposal entries provided herein are valid for the duration of this project, provided that the project is performed in the 2001 calendar year.

This Cost Proposal Bid Form executed this _____day of _____, 2001.

Contractor:_____ License No.:_____

By:_____ Federal ID No.:_____

Title:_____

-END OF SECTION –

SECTION 3.0 - CONDITIONS OF WORK

3.1 REGULATORY REQUIREMENTS

The execution of this Contract shall comply with all federal, state, and local regulations and guidance. The Contractor shall be familiar with and adhere to all applicable regulations and shall be subject to requirements of such whether specifically addressed herein or not. Such local, state, and federal regulations and guidelines include, but may not be limited to, the following:

REGULATION	TOPIC
40 CFR 761 (TSCA)	Handling, Treatment, Storage, Transportation, and Disposal of PCB-Containing Materials
40 CFR 260-267 (RCRA)	Hazardous Waste Management Regulations
29 CFR 1910 and 1926	OSHA Standards
CFR Title 49	Department of Transportation (DOT) Requirements
310 CMR 30.0000	Massachusetts Hazardous Waste Regulations
310 CMR 40.0000	Massachusetts Contingency Plan (MCP)

The Contractor will be obligated to meet the requirements of applicable environmental permits (to be obtained by GE) and/or regulations.

The Contractor shall obtain all other permits that may be required under local jurisdictions. These permits include, but are not necessarily limited to, those related to work within public roadways (Section 3.14), building permits, and zoning regulations.

3.2 SUBMITTALS

The Contract requires the submittal of various plans, documents, data, drawings, and other information related to the performance of construction activities. For those submittals required after contract award (e.g., Operations Plan, Health and Safety Plan, Contingency Plan, shop drawings, etc.), or unless otherwise indicated, five copies of each submittal (numbered in sequential order as submitted) should be submitted to the following individuals:

Attention: John F. Novotny, P.E. (Three copies)
General Electric Company
100 Woodlawn Avenue
Pittsfield, Massachusetts 01201
Telephone: (413) 494-3177

Attention: William A. Rankin, P.E. (Two copies)
Blasland, Bouck & Lee, Inc.
6723 Towpath Road, P.O. Box 66
Syracuse, New York, 13214-0066
Telephone: (315) 446-2570 (x209)

These submittals (with the exception of the Record Drawings) must be received prior to the Contractor's mobilization to the site or seven days prior to the Contractor's intended use of the item covered by the submittal, as appropriate. GE's representative will subsequently review the submittals to determine general compliance with the Contract conditions. GE Representative's review will not be a complete check of the detailed methods, materials, or procedures and shall not be construed as permitting any departure from the Contract, except where the Contractor has previously requested and received written approval from GE for such departure. The Contractor will not be permitted to undertake any activity that is directly or indirectly related to the item covered by the submittal until such time that GE provides notification to the Contractor.

Submitted data will be reviewed and stamped by GE's representative as follows:

- "Reviewed" if no objections are observed or comments made;
- "Reviewed and Noted" if minor objections, comments, or additions are made but resubmittal is not considered necessary;
- "Resubmit" if the objections, comments, or additions are extensive, or if transmittal to another Contractor is required. In this case, the Contractor must resubmit the items after correction, and the same number of copies must be included in the resubmittal as in the first submittal. The Contractor will not be permitted to perform any activity that directly or indirectly involves the item covered by the submittal until a "Reviewed" or "Reviewed and Noted" stamp is provided by GE's representative; and
- "Rejected" if the submittal under consideration is not, even with reasonable revision, acceptable, or when the data submitted are not sufficiently complete to establish compliance with the Contract Conditions. In this case, the Contractor must resubmit a new or modified submittal, which meets the scope and intent of the work specified in the Contract. The Contractor will not be permitted to perform any activity that directly or indirectly involves the item covered by the submittal until a "Reviewed" or "Reviewed and Noted" stamp is provided by GE's representative.

The following provides a listing of the required submittals subject to the provisions of this section:

- Proposed substitutions for materials or modifications to procedures specified in the Contract Document in accordance with Section 3.3 of the Conditions of Work;
- Operations Plan in accordance with Section 3.4 of the Conditions of Work;
- Health and Safety Plan in accordance with Section 3.5 of the Conditions of Work;
- Contingency Plan in accordance with Section 3.6 of the Conditions of Work;
- Work Schedule in accordance with Section 3.7 of the Conditions of Work;
- The name, location, and quantity of each source and type of soil fill material proposed by the Contractor, including provision of a sample from each source and soil fill type, in accordance with Section 3.28 of the Conditions of Work;
- The name of subcontractor(s) to be utilized;
- Record Drawings in accordance with Section 3.30 of the Conditions of Work; and
- All sample and analysis results, including all laboratory deliverables (e.g., wipe samples).

3.3 EQUIVALENT PROCEDURES/PRODUCTS

Unless directed otherwise, the Contractor may propose the use of substitute products and materials other than as specified in the Contract. The Contractor may also submit substitute procedures for performing operations other than as described in the Contract. All proposed substitute materials and procedures must be effectively equivalent to the materials and procedures specified in this Contract. In submitting "equivalent" products or procedures, the Contractor recognizes that it is responsible for all costs associated with furnishing, installing, or performing the "equivalent" product or procedure. This will include all costs for GE's representative to review, modify, or redesign the scope of work to accommodate the "equivalent" product or procedure.

The submittal or use of an "equivalent" product or procedure will in no way impact the overall implementation schedule. Potential time delays associated with GE's representative to review the proposed substitute should be considered by the Contractor in submitting an "equivalent" product or procedure.

The Contractor may prepare its lump sum cost estimate using "equivalent" products or procedures in lieu of those specified within this Contract. However, the Contractor recognizes that this will be done at risk, as the "equivalent" product or procedure may be deemed by GE as unacceptable. No additional costs will be incurred by GE for the replacement of "equivalent" products or procedures with those originally specified.

GE will be the sole judge of acceptability, and no substitute will be ordered, utilized, or installed without GE's prior written acceptance. GE may require the Contractor to furnish, at the Contractor's expense, a special performance guarantee or other surety with respect to any substitute.

3.4 OPERATIONS PLAN

Prior to implementation of work activities, the Contractor shall submit an Operations Plan to GE for review and approval. This plan shall address, but not be limited to, the following items:

- List of equipment to be used on-site;
- Safety, security, and protection of all adjacent properties (i.e., General Dynamics parking lot, and the Pittsfield Generating Company facility) protection procedures;
- Work Schedule (Section 3.7 of the Conditions of Work);
- Stormwater (including run-on and run-off), erosion, noise, and dust control measures;
- Equipment cleaning procedures (Section 3.26 of the Conditions of Work and Attachment 4); and
- Procedures to be used to install and compact materials within the consolidation areas.

The purpose of the Operations Plan will be to summarize the materials, procedures, and controls that the Contractor intends to utilize during consolidation and OPCA operation activities. The Operations Plan should address all appropriate issues described in the Contract and should be of sufficient detail to allow possible submittal to the Agencies.

For the purpose of developing a bid, the Contractor should assume that the following parameters/activities will be required for preparation of an Operations Plan:

- Attendance at a pre-construction meeting in Pittsfield, Massachusetts to discuss technical implementation issues associated with the work activities. The Contractor's proposed on-site manager, the Contractor's overall project manager, and the site foreman should be in attendance at the meeting;

- Within three business days of the meeting, the Contractor must develop a draft Operations Plan for submittal to GE. Preparation of a final version of the Operations Plan within the following two business days should be assumed by the Contractor, as well as one or more conference calls to discuss the Plan.

3.5 HEALTH AND SAFETY PLAN

The Contractor shall prepare, submit, and implement a site-specific Health and Safety Plan (HASP) that, at a minimum, meets the requirement of 29 CFR 1910 and 29 CFR 1926 (which includes 29 CFR 1926.65) and the minimum requirements of GE's site HASP. The Contractor's HASP shall cover all personnel who will be employed by the Contractor to perform remedial work at the site, including direct employees as well as subcontractors. If the Contractor does not wish to include subcontractors under its HASP, then each subcontractor will be responsible for developing and implementing a HASP that meets the requirements outlined in this RFP. The Contractor will be responsible for ensuring that all of its subcontractors have adequate HASPs prior to any on-site work by the subcontractor, and are adhering to the HASPs during the work activities. If a subcontractor agrees to be included under the Contractor's HASP, then a statement to this effect shall be submitted to GE.

The materials subject to consolidation as part of this Contract may contain constituents including, but not limited to, PCBs. The results of prior sampling and analyses on the materials subject to this Contract will be available for review by the successful Contractor. It is the Contractor's responsibility to understand and incorporate the information obtained from these prior sampling activities in the development of a HASP.

For work required by the Contract involving the potential for personnel contact or exposure to PCBs and other Appendix IX constituents present in the site soils and consolidation materials, the Contractor must comply with 29 CFR 1910, 29 CFR 1926, 40 CFR 260-267, and related regulations which call for the development and implementation of a safety and health program for employees involved in hazardous waste operations. The Contractor will be required to comply with all requirements under these regulations for this project.

Prior to commencement of field activities, the Contractor must certify that personnel employed at the site, who are directly involved with removal measures, including employees and subcontractors, have completed a 40-hour hazardous waste site health and safety training course (and annual refresher training) in accordance with 29 CFR 1910.120 and 29 CFR 1926.65. The Contractor must also certify that any individuals who later became employed by the Contractor also receive such training prior to performing work at the site.

The Contractor must certify that all personnel who will be employed by the Contractor to perform work at the site, including direct employees as well as subcontractors, have received the initial and annual (if applicable) medical examinations and are enrolled in an on-going medical surveillance program as required by 29 CFR 1910 and 29 CFR 1926.

The Contractor must also comply with the Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL 91-54).

The Contractor will be responsible for the safety of its employees, subcontractors, suppliers, and other parties at the work area as a result of the Contractor's direction.

The Contractor must prepare, submit, and implement a HASP in accordance with 40 CFR 1910.120, 29 CFR 1926.65. The plan must address, but not be limited to, the following components:

1. Identification of Key Personnel - Identify, by name and by title the on-site and off-site health and safety personnel responsible for the implementation of health and safety procedures. All on-site personnel involved in the measures must have OSHA 40-hour Hazardous Waste Training (29 CFR 1910.120 and 1926.65) and the corresponding 8-hour refresher course update.

2. Training - Describe and provide certification of all supervisory and on-site personnel having received appropriate health and safety training. Training requirements shall also include attending an initial site orientation prior to engaging in any on-site activities. Sign-off sheets acknowledging attendance shall be provided.

3. Medical Surveillance - Certify that all supervisory and on-site personnel have received appropriate medical examinations and are able to conduct the tasks required for this project including, but not limited to, working with chemicals, using respiratory protection, using personal protective equipment and conducting hazardous waste operations in accordance with 29 CFR 1910.120 and 1926.65.

4. Task-specific Hazard/Risk Analysis - Identify and provide a means of mitigating all foreseeable biological, chemical, and physical hazards associated with the work, including, but not limited to, hazards associated with exposure to constituents of concern, heavy equipment operation, site conditions, weather, biological hazards, materials handling, and work around excavated areas.

5. Work Zones - Provide a site plan which depicts the designation of zones including (1) Exclusion Zones (2) Decontamination Zones, and (3) Support Zones. The level of personal protection for each zone must be included.

6. Personal Safety Equipment and Protective Clothing - Identify personal safety equipment and protective clothing to be used and available on-site. This shall include identification of expected levels of protection (A, B, C, and D) for each task, and the action levels for personal protective equipment upgrades. A respiratory protection program that meets the requirements of 29 CFR 1910.134, and which establishes specific requirements for any respirator use shall be included.

7. Personal Air Monitoring - Identify protocols and criteria associated with personal air monitoring of on-site personnel.

8. Equipment Decontamination - Describe methods and procedures to be used for personnel, vehicle, and equipment decontamination.

9. Material Safety Data Sheets - Provide Material Safety Data Sheets (MSDSs) for all materials to be brought on site, as well as constituents, which are expected to be encountered in the course of the construction activities.

10. Construction Safety Procedures (OSHA 1926.1 - 1926.652, Subpart A-P) to address excavation and trenching safety procedures, as well as daily site safety inspection checklist to evaluate these items.

11. Standard Operating Procedures and Safety Programs as required by applicable sections of 29 CFR 1910 and 1926.

The HASP, and all subcontractor HASPs, shall be submitted to GE for review at least 7 days prior to mobilization to the Site. Determination of the appropriate level of worker safety equipment, procedures, or

modification to equipment and procedures based on site conditions must be made by the Contractor as a result of site visit(s), review of available information, and anticipated site activities.

Should the Contractor identify any unforeseen or site-specific safety-related factor, hazard, or should a condition become evident during the performance of work at the site, it will be the Contractor's responsibility to bring such to the attention of GE both verbally and in writing as quickly as possible for resolution. In the interim, the Contractor should take prudent action to establish and maintain safe working conditions and to safeguard employees, the public, and the environment.

Should the Contractor seek relief from, or substitution for, any portion or provision of the HASP, such relief or substitution must be requested of GE in writing, and if approved, be authorized in writing.

Any disregard for the provisions of these Health and Safety requirements will be deemed just and sufficient cause for termination of the Contract without compromise.

3.6 CONTINGENCY PLAN

The Contractor must prepare, submit, and implement a Contingency Plan, which includes, at a minimum, the following items:

- A spill prevention control and countermeasures plan for all materials brought on the site;
- Emergency vehicular access/egress;
- Evacuation procedures of personnel from the work site;
- A listing of all contact personnel with phone numbers to include: GE, the Contractor; the City of Pittsfield; fire officials; ambulance service; local, county, and State Police; and local hospitals, including routes to local hospitals and procedures for notifying each; and
- Identification of responsible personnel who will be in a position at all times to receive incoming phone calls and to dispatch Contractor personnel and equipment in the event of an emergency situation. The telephone number(s) must be supplied to GE not less than five (5) days prior to the commencement of work.

3.7 WORK SCHEDULE

As part of the Operations Plan (Section 3.4 of the Conditions of Work), the Contractor must submit a proposed Draft Construction Schedule to GE for review and approval. The Draft Work Schedule should be a horizontal bar graph including all elements of the construction activities, and be neatly prepared and labeled indicating all anticipated start and completion dates. Additional requirements are provided below:

- Provide separate lines for each section of work, identifying the first work day of each week;
- At a minimum, the following work items should be included:
  - Mobilization
  - Site Preparation
  - Hill 78 OPCA Consolidation Activities

- Building 71 OPCA Consolidation Activities
- Restoration Activities
- OPCAs Operations
- Site Monitoring and Maintenance
- Demobilization

- Show complete sequence of construction by activity, identifying work of separate stages and other logically grouped activities including work by subcontractors. Indicate the early and late start, early and late finish, float dates, and duration; and

- Revise and resubmit a construction progress schedule on a weekly basis.

Failure to comply with these requirements may result in work stoppage, at the Contractor's expense, until such time that the requirements of this condition are met.

3.8 PROJECT MEETINGS

A pre-construction meeting will be held following the award of Contract and prior to Contractor mobilization to the site. This meeting will be scheduled by GE after the award of Contract. The purpose of the Pre-Construction Meeting is to review Contract requirements, review/modify the Contractor's Work Schedule (Section 3.7), discuss the development of the Contractor's Operations Plan (Section 3.4), introduce various project team members representing the Contractor, GE, and GE's Representative, and resolve any questions raised by said parties.

In the preparation of a cost proposal, the Contractor should assume participation in continuous coordination efforts with all on-site parties. "Tailgate" meetings will be held at the work site. These meetings will be attended by on-site representatives of the Contractor and GE to discuss day-to-day operations, schedule, health and safety items, outstanding issues, and the general status of the project. Approximate weekly meetings will be held on-site among representatives of the Contractor, GE, and GE's representative. These meetings will be held to discuss issues including, but not limited to, project status, schedule, scope of work, and overall project implementation issues.

3.9 PROVISIONS FOR EXTRA WORK/CHANGE ORDERS

During the course of performing this Contract, modifications may be identified that impact the amount of manpower, equipment, materials, or other subcontract services required. In this event, GE will prepare a Change Order. The Change Order will inform the Contractor of Contract modifications and request a cost adjustment in reference to the Contract cost proposal. If the cost adjustment is acceptable to and approved by GE, the Contractor shall proceed with implementing the Change Order. If the cost adjustment is not acceptable to GE, then the work will be performed under force account.

Force account work shall be measured and paid based on expended labor, equipment, and materials, plus an allowance for overhead and profit. At the end of each work day the Contractor and GE's representative shall agree on total labor (Contractor and Subcontractor) and equipment hours utilized for the force account work, as well as the quantity of any materials used. Agreement shall be indicated by signature of the Contractor and GE's representative on each day force account work is being performed.

No payment will be made for work performed on a force account basis until the Contractor has provided GE with statements of costs of such force account work detailed as follows:

- Copy of daily forms from Contractor, summarizing total labor and equipment hours utilized for the force account work, as well as the quantity of any materials used, signed by both the Contractor and GE's representative;

- A summary of all labor, equipment, and material costs to perform the force account work. This includes:

  - Name, labor classification, date, daily hours, total hours, hourly rate, and extension for each laborer and foreman (does not include superintendents or other labor classifications above a foreman). The hourly rates will be agreed upon by GE (based on the rates submitted by the Contractor, as discussed in Section 1.11 of this RFP) and will include all supplemental benefits, payroll taxes, insurance premiums, overtime, and other reasonable charges that are paid by the Contractor. The hourly rates should not include any profit or overhead markups (this will be discussed below);

  - Equipment name, date, daily hours, total hours, rate (either hourly, weekly, or monthly), and extension for each unit of self-owned construction equipment (does not include small hand tools). Based on the duration that the construction equipment was used, either the hourly, weekly, or monthly equipment rate will be used (based on the rates submitted by the Contractor, as discussed in Section 1.11 of this RFP) and will include costs for fuel and maintenance. The hourly, weekly, and monthly equipment rates should not include any profit or overhead markups (this will be discussed below). For rented equipment, such equipment will be paid based on the rental cost incurred by the Contractor and a copy of the invoice should be provided to GE; and

  - Quantities of materials, prices, and extensions. Invoices should be included for all materials used, as well as and any transportation charges that may be associated with delivering the materials to the work site;

- Total cost of subcontractors used to perform force account activities. Also, should include a copy of the invoice submitted to the Contractor from the subcontractor; and

- Overhead and profit for all force account work shall be computed at 10 percent of the total direct labor cost (not including the premium portion of overtime), total cost of construction equipment, total cost of materials, and total cost of subcontractors.

  Overhead shall be defined to include the following items:

  - Premiums on bonds and any corporate insurance policies;

  - All salary and expenses of executive officers, supervising officers, or supervising employees;

  - All charges for minor equipment, such as small tools and other miscellaneous supplies and services; and

  - All office-based charges related to copies, phone charges, and clerical activities.

3.10 OFFICE TRAILER AND SUPPORT SERVICES

An existing trailer equipped with heat, and electric and telephone service, is located adjacent to the work sites and can be used by the Contractor throughout the construction activities. The Contractor is required, however, to provide portable sanitary facilities near the construction site or at the office trailer for the duration of the project.

In addition, the Contractor shall provide a cellular phone at the work site for the duration of site activities. The cellular phone shall be accessible to key site personnel so that they can contact others or be contacted as required.

3.11 WORK HOURS

GE anticipates that on-site work activities can be conducted during daylight hours (as restricted by any local ordinances), five days per week (Monday through Friday), except in cases of emergency, or unless prior approval has been obtained from GE.

3.12 WORKING LIMITS

The Contractor must restrict all work activities including, but not limited to, storage of materials and equipment to be incorporated in the project, as well as parking of vehicles, heavy equipment, project trailers, etc., to those areas approved by GE (also refer to Section 3.20 of the Conditions of Work).

3.13 EXISTING CONDITIONS

It is the Contractor's responsibility to understand and verify the exact nature, character, quality, and quantity of all conditions to be encountered. The Contractor shall develop an independent estimate of the stockpiled material quantities. Locations, depths, lengths, etc. of existing structures (e.g., ditches, liner systems, utilities, etc.) shown on the Technical Drawings are approximate only, and must be field verified. Any reliance upon the RFP and information made available by GE will be at the Contractor's risk. The Contractor agrees that it will neither have nor assert against GE any claim for damages for extra work or otherwise for relief from any obligation of this Contract based upon the accuracy of the drawings or information furnished. No changes in the contract price or schedule will be allowed for instances where the actual quantities differ from the RFP or the Contractor's independent estimate. The Contractor may be entitled to an adjustment in the Contract Price only under the circumstances and to the extent provided by the Contract.

3.14 WORK WITHIN PUBLIC ROADWAYS

The use and protection of all public roadways involved in this Contract must be in accordance with all applicable federal, state, county, and local requirements. All transportation of equipment and materials along public roadways must be preceded by the application and issuance of all necessary road and bridge crossing permits from the appropriate public agencies. The Contractor will be responsible for all permits and associated fees. Repair and/or replacement of any damages to existing roadways or bridges will be the Contractor's responsibility.

In accordance with City of Pittsfield requirements, the Contractor will provide and pay for all required and appropriate traffic warnings and controls for all points of equipment access to the site. Such warnings and controls will include, but are not limited to, warning signs and the use of a flagperson or police officer during all instances when heavy equipment enters or exits the site. The use of such controls must be maintained for the duration of on-site activities.

At a minimum, the Contractor shall assume that a flagperson or police officer will be needed at the work site when oversized vehicles are entering or exiting the work site. The Contractor's proposed method for controlling vehicular/pedestrian traffic during construction activities at each work site should be included

in the Operations Plan (Section 3.4 of the Conditions of Work). Costs for a flagperson or police officer must be included in the Contractor's bid.

3.15 PROTECTION OF EXISTING STRUCTURES AND UTILITIES

During the course of this Contract, it may be necessary to work adjacent to existing utilities, structures, and equipment. The Contractor must not interfere with or cause damage to any existing structures or utilities. The Contractor must notify utility companies (and/or any private organization who is authorized by the utility companies to delineate the presence of all subsurface services [e.g., Massachusetts DIGSAFE]) at least seventy-two (72) hours before on-site activities are started. The Contractor will provide the necessary utility contact information for GE to verify that such notification has occurred prior to initiating on-site activities. The utilities must be protected in a manner prescribed by the utility company. Any existing structure or utility which is damaged during the construction activities must be immediately reported to the respective utility company (if applicable) and GE. Appropriate repairs shall be made at the expense (time, labor, materials, etc.) of the Contractor.

3.16 PROTECTION OF THE ENVIRONMENT

During the performance of construction activities, the Contractor must take all necessary precautions to protect the environment. In doing so, the Contractor must protect all water courses, surface waters, groundwater, soils, and air from degradation or damage in accordance with all federal, state, and local laws and regulations.

To prevent accelerated erosion of areas subject to construction activities and to prevent excess sedimentation in site drainage pathways, the Contractor must utilize appropriate soil erosion and control measures. This will include the placement and maintenance of staked hay bales, silt fences, check dams, and/or other surface water diversion methods at the locations identified on the Technical Drawings, around temporary soil staging areas, and in additional areas as noted by GE or GE's representative during the course of construction activities. All erosion control measures must be inspected on a daily basis and after any rainfall to assure that maximum control is being provided. Following inspection, and as necessary, the erosion control measures should be modified, cleaned, reinforced, replaced, and/or maintained.

The Contractor must take adequate measures for keeping noise levels produced by construction equipment, to safe and tolerable limits as set forth by OSHA, the USEPA, Massachusetts codes or ordinances, and/or any local requirements. All construction equipment presenting a potential noise nuisance must be provided with noise muffling devices.

The Contractor will make available to GE (on a timely basis) the results of any air monitoring conducted by the Contractor as any form of worker or work area monitoring. The Contractor's proposed air monitoring approach must be identified in its HASP.

3.17 TEMPORARY FENCING

The Contractor shall install and maintain temporary fencing or other temporary barriers to minimize unauthorized or unknowing access to the work site. At a minimum, the following areas will be subject to this requirement:

- Areas designated as Contractor-identified health and safety zones (e.g., Exclusion Zones, Support Zones, etc.);

- Areas utilized for personal or equipment cleaning activities;

- Any areas where the activities of the Contract may cause a disruption to the normal vehicular or pedestrian traffic at the site; and

- Existing fence line areas that are temporarily removed to facilitate construction activities.

Wherever possible, the temporary fencing or barrier should be construction-type fencing, constructed of high density polyethylene (HDPE), or equivalent, 4 feet in height (minimum), and orange in color. The fencing should be supported by vertical posts installed at a depth into the ground and at an interval that will withstand normal wind loads. Where the surface does not allow the use of support posts driven into the ground, alternate means should be utilized by the Contractor. Wood barriers are an acceptable alternative for paved areas or areas where the fencing/barrier is needed on a short-term basis only.

3.18 DISPOSAL OF CLEARED MATERIALS

All materials which are cleared in order to facilitate work at a given area must be disposed of according to the following criteria:

- All materials cleared from at or below grade (i.e., tree stumps/roots, surface debris, etc.) must be chipped or ground, and temporarily stockpiled on-site at a location approved by GE for future disposal within the consolidation area. These materials may, with GE's approval, be used to stabilize any wet material delivered to the site for consolidation, construct temporary access roads within the confines of the consolidation areas, or for any other purpose as long as they are used, and ultimately disposed of, within the consolidation area.

- All vegetative materials cleared from above grade (i.e., trees/brush/branches, etc.) should be chipped and/or shredded and temporarily stockpiled on-site at a location approved by GE for future use during consolidation activities (e.g., roadway surfacing materials during wet periods, landscaping materials, etc.).

3.19 TEMPORARY ACCESS ROADS

Temporary access roads may be constructed at the work site, as necessary, to provide further access for equipment and vehicles. The temporary access roads shall consist of, at a minimum, a geotextile overlain by 6 inches of crushed stone. Access road widths, locations, and configurations shall be developed by the Contractor in accordance with its planned construction activities. The Contractor shall remove access roads at the conclusion of construction activities, unless otherwise directed by GE. If removed, the access road materials shall be disposed on-site at a location approved by GE.

3.20 EQUIPMENT STORAGE

The area available for storage of the Contractor's equipment and materials is located between the two OPCAs, north of the paved access road and south of the stormwater pond. If the Contractor requires additional on-site storage space, it may notify GE, who will attempt to make arrangements for additional storage areas in the vicinity of the work. All areas that are used for storage of equipment and materials shall be restored to original conditions upon completion of work activities at no additional cost to GE.

Space may be made available for storage of equipment and materials at other locations at the GE facility. The Contractor may use this or other off-site storage areas provided that such use does not impede the progress of the work and is at no additional cost to GE.

3.21 AIR MONITORING

Air monitoring will be conducted by GE's Air Monitoring Contractor during project components that include handling site soils and imported consolidation materials. Such monitoring is for the purpose of gauging the presence of airborne particulates (if any) resulting from work activities and shall not be relied upon by the Contractor as any form of worker or work area monitoring. Monitoring results will serve as one mechanism to initiate dust control activities (Section 3.22 of the Conditions of Work).

Prior to initiating work on any given day, or following a work shutdown, the Contractor shall verify that air monitoring is underway. If, for any reason, air monitoring is not being conducted, the Contractor is prohibited from performing any site activities that could potentially create airborne dust. Any violations of this Condition of Work, and any regulatory fines imposed as a result of this violation, are the responsibility of the Contractor.

GE's Representative will inform the Contractor of any exceedances of the 120 micrograms per cubic meter (µg/m3) airborne particulate concentrations action level, and the Contractor will be responsible for implementing dust control measures immediately to migrating this condition.

3.22 DUST SUPPRESSION

The Contractor shall be responsible for controlling any/all dust generated as a result of excavation, backfilling, unloading of imported materials, placement of consolidation materials, or any other site activities. Dust will be controlled based on visual observations and/or the results of any airborne particulate monitoring conducted by GE's Air Monitoring Contractor. The presence of any visible dust during the performance of construction activities is not acceptable and will require the temporary suspension of work activities and the implementation of appropriate dust control measures. Appropriate dust control measures include the following:

- Spraying water on access roads;
- Spraying water on excavation faces, dozer blades during grading, and soil when unloading transport vehicles;
- Spraying water on backfill stockpiles and on backfill materials that have been placed in fill areas;
- Hauling soil materials in properly tarped vehicles;
- Restricting vehicle speeds; and
- Covering soil piles with polyethylene sheeting after work activities cease for the day.

The Contractor shall make every attempt to use existing water supplies (e.g., fire hydrants, piping networks, etc.) at no cost to GE. However, a source of water (water tank truck, storage tank, etc.) should also be made available by the Contractor at the work site. The Contractor will be responsible for maintaining, in the immediate vicinity of the work, a supply of water and means of dispersion (e.g., a water tank and sprayer, tanker truck with hose, etc.) such that water may be applied for dust control immediately as required. If the

dust control measures being utilized by the Contractor do not eliminate or substantial lower dust levels as determined by GE based on visual observations and/or the results of airborne particulate monitoring, work activities must be suspended until the Contractor develops the appropriate corrective measure(s) to remedy the situation.

3.23 ESTIMATED QUANTITIES

The Contractor's bid price shall be based on the required work activities outlined in this RFP, specified in the Technical Specifications, shown on the Technical Drawings, and/or deemed necessary to complete the work activities. It is the responsibility of the bidder to develop independent estimated quantities for each of the Lump Sum cost items. Estimates provided for the anticipated material quantities are provided for informational purposes only, and should not be solely relied upon by the Contractor when developing its cost proposal. Deviation between the Contractor's estimated quantities and the actual quantities associated with the construction limits will not be grounds for additional compensation.

3.24 MEASUREMENT AND PAYMENT

The method of payment for the various components of the construction will be on a lump sum or unit price basis with provisions for add/deduct as appropriate. The Contractor should base the lump sum portion of the cost on the actual amount of materials stockpiled in the Buildings. Deviations from this amount (solely based on the direction of GE) will result in appropriate add/deduct modifications to the original lump sum cost proposal. Documentation provided in support of the Contractor's Lump Sum price will be used to calculate the amount of any cost modifications. Also, as a means of monitoring the progress of the work, the Contractor must submit to GE, on a weekly basis, written verification of construction activities completed and the information supporting this verification (e.g., notes, dimensions, calculations, and sketches). Although estimates are to be provided weekly, the final quantities associated with add/deduct amounts will be based on the results of pre- and post-construction surveys (Section 3.26 of the Conditions of Work).

3.25 SEGREGATION OF MATERIALS

Two categories of materials have been identified for consolidation activities: "TSCA" and "Non-TSCA". When consolidating materials, the Contractor must take all necessary precautions to prevent the mixing of materials from each classification and/or the consolidation of materials into the inappropriate OPCA. The Contractor is responsible for any and all errors as they pertain to the active consolidation activities.

3.26 SURVEY CONTROL

The Contractor will be responsible for performing all survey activities, using a Massachusetts-licensed land surveyor, during the performance of construction activities. The survey activities will include, at a minimum, the following:

- Reviewing the Technical Drawings for the site prior to initiating site activities, and thoroughly evaluating the existing conditions at the work site;

- Staking out the limits of construction/consolidation and maintaining the stakes during the performance of construction/consolidation activities;

- Performing detailed horizontal and vertical control surveys following the consolidation of the currently stockpiled materials. The survey data will be used as the "pre-consolidation surface" for determining payment quantities for "In-Place Cubic Yards" for any additional materials (i.e., add/deduct amounts);

- Installing additional stakes prior to the completion of work activities to establish final elevations and facilitate site restoration activities;

- Performing a detailed survey following site restoration activities of all areas disturbed during construction to verify that the site is restored in accordance with the provisions of the Contract and to develop final quantities for payment (if applicable); and

- Providing all survey notes (e.g., control points, baseline data, etc.) to GE to allow survey replication by GE.

GE's representative may periodically audit the Contractor's surveyor, both in the field and office, to review all accumulated data and evaluate the surveyor's performance. The Contractor should assume that these periodic audits will be performed on a bi-weekly basis.

Based on the contents of this Conditions of Work section, the Contractor should anticipate and schedule site work to accommodate the performance of survey activities. No Contractor claims for additional payment due to work interruption caused by the performance of survey activities will be considered by GE.

3.27 CONTRACTOR EQUIPMENT AND MATERIALS CLEANING

All reusable equipment and materials utilized by the Contractor in the performance of this Contract must be cleaned prior to its re-location within the site, prior to handling "clean" materials, and prior to its departure from the site. All cleaning activities will be performed at the site in an area approved by GE.

Non-disposable equipment cleaning shall be deemed complete based on a review by GE's Representative and the analytical results of wipe samples. GE's Representative may collect a minimum of three wipe samples from each piece of Contractor-controlled equipment prior to demobilization from the site. The wipe samples will be submitted to a GE-approved laboratory for PCB analysis on a 24-hour turnaround basis (at the Contractor's expense) to confirm that PCBs are not present at concentrations greater than or equal to 10 micrograms per 100 square centimeters (10 ug/100 cm2). Equipment that does not meet this objective will be recleaned by the Contractor at no additional expense to GE. As described in Attachment 4 to this RFP, even if select wipe samples obtained from select pieces of equipment exhibit concentrations below, but near 10 ug/100 cm2, the sample results may not provide adequate verification that the entire piece of equipment is below 10 ug/100 cm2 (see Section 7.0 of Attachment 4). As such, additional cleaning efforts and wipe sampling may be required by GE. To allow a common basis for developing cost proposals, the Contractor shall assume that 50 wipe samples are required.

All portions of transport vehicles that have contacted the consolidation materials (e.g., wheels, undersides, etc.) must also be cleaned using a high-pressure, low volume water spray in the equipment cleaning area.

Wash water, solids, and other materials generated during equipment cleaning outside of the Building 71 OPCA must not contact native soils and existing facilities, and must be collected by the Contractor and placed into designated containers. Liquids, with low solids content, must be transported to the GE treatment facility for treatment by GE. Solids, soils, and other materials contained within sealed containers will be left on site at a GE approved location for final disposal by GE.

The Contractor must submit proposed equipment cleaning procedures as part of the Operations Plan (Section 3.4 of the Conditions of Work).

3.28 SOIL FILL SOURCES

Only soil fill approved by GE may be utilized at the site (e.g., road gravel, topsoil, interim covers, etc.). The Contractor is required to specify the name and location of the proposed fill sources with its bid. At least one week prior to the procurement or use of fill from any source, the Contractor shall provide GE with one sample of the proposed soil fill material. These samples will be subject to the following analyses at the expense of GE:

- PCBs;
- Volatile Organic Compounds (VOCs);
- Semi-VOCs;
- Metals; and
- Total Petroleum Hydrocarbons (TPH).

The results of the analyses will be compared to the appropriate regulatory levels. If such analyses indicate unacceptable chemical characteristics, GE will reject the use of fill materials from the proposed source(s), and the Contractor must identify and submit a sample(s) from another fill source. If a fill source is rejected by GE, analytical testing for one additional fill source will be performed at the expense of GE. If additional fill sources (more than two sources per fill material) are rejected, additional testing will be at the expense of the Contractor.

Soil sampling results previously submitted to, and approved by GE, for the proposed sources can be submitted to GE in lieu of additional testing. However, GE reserves the right to request additional verification testing prior to source approval.

3.29 REMOVAL/DISPOSAL OF ACCUMULATED WATERS

In the event that accumulations of direct precipitation or run-off are present in quantities that inhibit consolidation activities, the Contractor shall be responsible for providing the necessary equipment, materials, and labor to remove and dispose such water. At a minimum, this shall include the provision of pumps and a means of transferring waters accumulated to the leachate collection manhole. The pumps shall be used to remove accumulated water from the consolidation cell whenever the presence of such water inhibits consolidation activities, compromises the integrity of the consolidation cell, may overtop the consolidation cell, or as directed by GE or GE's Representative. Accumulated waters pumped out of the consolidation cells shall be pumped into on-site frac tanks to be provided by the Contractor, or directly to the leachate collection manhole.

All equipment used in handling accumulated waters, including pumps, frac tanks, and tanker trucks, shall be subject to cleaning procedures as described in Section 3.27 prior to their final removal from the site.

3.30 RESIDUAL WASTES

Residual wastes, including used personal protective equipment, gloves, etc., generated by the Contractor and GE's Representatives must be collected by the Contractor and placed into appropriate containers (when necessary) for future disposal by the Contractor in the appropriate OPCA. Liquids collected outside the Building 71 OPCA, with low solids content, must be transported to the GE treatment facility for treatment by GE. Solids, soils, and other materials must be disposed of in the appropriate consolidation area.

3.31 SITE RESTORATION AND WARRANTY

Site restoration activities will be required for all disturbed areas. Portions of fencing that are relocated as part of the consolidation activities must be restored by the Contractor as required to match the existing fencing. The restoration of any areas resulting from damage by the Contractor due to negligence or improper activities must be repaired by the Contractor at no expense to GE.

The finished products of restoration must be maintained and adequately protected using erosion control measures, as appropriate, such that conditions similar to pre-construction conditions exist during a period of one year following the date of substantial completion of work. Any settlement (including visible cracks and depressions greater than 1 inch) occurring in backfilled excavations during this time period, must be repaired by the Contractor at no additional cost to GE.

3.32 RECORD DRAWINGS

During implementation of the consolidation activities, the Contractor must keep one set of the Technical Drawings at the site on which the Contractor must clearly document all construction activities. The drawings must accurately shows all changes in, or directly associated with, the work under this Contract. Such changes must be neatly and clearly marked on the drawings using colored ink or pencil, and the entire set of drawings must be kept current on a day-to-day basis in concert with the progress of the work. Where applicable, the change marked on a drawing is to carry the notation "per Change Order No. ___," or similar reference which cites the reason for the change. The day to day construction Record Drawings must be made available to GE for review upon request.

The following items are examples of some of the types of changes, which could occur and are to be recorded on the Record Drawings by the Contractor.

- Change in location of project components, including vertical elevations (e.g., rim or invert elevations);
- Modified consolidation limits and explanation for change;
- Additions to project;
- Elimination of a project component;
- Relocation of existing underground utilities made necessary because of interference with project components;
- Unforeseen modifications made to existing structures made necessary by requirements of the work; and

- Site restoration modifications made at the request of GE.

If no changes were made to certain components of the work, a note should be added to the construction detail or drawing indicating such.

GE retains the right to withhold a portion of payments (up to 5% of the total contract price) to the Contractor if Record Drawings are not kept current in accordance with this section.

Upon substantial completion of the Contract, the Contractor must deliver two (2) complete, accurate, and legible sets of Record Drawings to GE.

3.33 COORDINATION WITH OTHERS

The effective and timely performance of work activities at the work sites will require coordination between the Contractor (and any of its subcontractors), GE, GE's Representative, the Air Monitoring Contractor, other remediation contractors, and the Agencies. The Contractor shall recognize and accommodate the work of other contractors to facilitate timely implementation of the overall project. Several conditions have been included in this Contract to facilitate coordination efforts. These include Project Meetings (Section 3.8 of the Conditions of Work), Work Schedule (Section 3.7 of the Conditions of Work), and the identification of the sequence of construction activities (in the Operations Plan, Section 3.4 of the Conditions of Work).

3.34 MEDIA RELATIONS

The work of this contract may potentially be subject to coverage by the media and other special interest groups. Under no circumstances shall the Contractor, any subcontractor, or employee thereunder provide interviews or any information regarding the scope, progress, or performance of the work. All requests for interviews or information made by any such individual or group shall be directed to:

Mr. John F. Novotny, P.E.
General Electric Company
100 Woodlawn Avenue
Pittsfield, Massachusetts 01201
Telephone: (413) 494-3177

- END OF SECTION –

SECTION 4.0 - MATERIAL & PERFORMANCE SPECIFICATIONS

Section 02207 – Restoration of Surfaces
Section 02212 – Topsoil, Seeding and Mulch
Section 02222 – Soil Fill Materials

MATERIALS AND PERFORMANCE – SECTION 02207

RESTORATION OF SURFACES

PART 1 - GENERAL

1.01 DESCRIPTION

A. All types of surfaces disturbed, damaged, or destroyed during the performance of the work under or as a result of the operations of the Contract, shall be restored and maintained, as specified herein or as directed by GE or GE's Representative.

B. The quality of materials and the performance of work used in the restoration shall produce a surface or feature equal to or better than the condition of each before the work began, as approved by GE or GE's Representative.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section MP-02212 - Topsoil, Seeding and Mulch

B. Section MP-02222 - Soil Fill Materials

1.03 SUBMITTALS

A. A schedule of restoration operations shall be submitted by the Contractor for review.

1.04 SCHEDULE OF RESTORATION

A. After an accepted schedule has been agreed upon, it shall be adhered to unless otherwise revised with the approval of GE or GE's Representative.

B. The replacement of surfaces at any time, as scheduled or as directed, shall not relieve the Contractor of responsibility to repair damages by settlement or other failures.

PART 2 - PRODUCTS

Specified elsewhere.

PART 3 - EXECUTION

3.01 STONE OR GRAVEL PAVEMENT

A. All pavement and other areas surfaced with stone or gravel shall be replaced with material to match the existing surface unless otherwise specified.

1. The depth of the asphalt or gravel shall be at least equal to the existing.

2. After compaction, the surface shall conform to the slope and grade of the area being replaced.

MATERIALS AND PERFORMANCE – SECTION 02207

RESTORATION OF SURFACES

3.02 GRASSED AREAS

A. The area to receive topsoil shall be graded to a depth of not less than 6 inches or as specified, below the proposed finish surface.

1. If the depth of existing topsoil prior to construction was greater than 6 inches, topsoil shall be replaced to that depth.

B. The furnishing and placing of topsoil, seed and mulch shall be as directed by GE or GE's Representative.

C. When required to obtain germination, the seeded areas shall be watered in such a manner as to prevent washing out of the seed.

D. Any washout or damage which occurs shall be regraded and reseeded until a good sod is established.

E. The Contractor shall maintain the newly seeded areas in good condition, including regrading, reseeding, watering and mowing.

3.03 OTHER TYPES OF RESTORATION

A. Trees, shrubs and landscape items inadvertently damaged or destroyed as a result of the construction operations shall be replaced in like species and size.

1. All planting and care thereof shall meet the standards of the American Association of Nurserymen.

B. Drainage structures, including culverts, manholes, catch basins, and piping, that are destroyed or removed as a result of the construction operations shall be replaced in like size and material and shall be replaced at the original location and grade unless otherwise shown on the Technical Drawings. When there is minor damage to a drainage structure and with the consent of GE or GE's Representative, a repair may be undertaken, if satisfactory results can be obtained.

Fences destroyed or removed as a result of the construction operations shall be replaced in like size and material and shall be replaced at the original location unless otherwise noted.

3.04 MAINTENANCE

A. The finished products of restoration shall be maintained in an acceptable condition for and during a period of one year following the date of Substantial Completion or other such date as set forth elsewhere in the Contract Documents.

- END OF SECTION -

MATERIALS AND PERFORMANCE – SECTION 02212

TOPSOIL, SEEDING, AND MULCH

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work under this section consists of furnishing and placement of topsoil, fertilizer, seed, mulch, and maintenance of seeded areas until final acceptance.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section MP-02207 - Restoration of Surfaces

B. Section 3.27 - Soil Fill Sources

C. Section 3.29 - Site Restoration

1.03 SUBMITTALS

A. Analysis of the seed (to demonstrate compliance with the seed mix identified in Section 2.01 of this specification) and fertilizer (to identify chemical composition), and proposed application rates (to demonstrate compliance with the fertilizer application rate identified in Section 3.01B of this specification).

B. Should hydroseed be used, the Contractor shall submit all data including material and application rates.

C. Location of source, and pH and organic content testing of off-site topsoil (if required).

D. Sample of topsoil to be tested by GE for chemical contaminants as discussed in Section 3.28 - Soil Fill Sources.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Any off-site topsoil shall be unfrozen, friable, natural loam and shall be free of clay lumps, brush needs, litter, stumps, stones, and other extraneous matter. The topsoil shall have an organic content between 5% and 20%, and a pH between 5.5 and 7.5.

B. Fertilizer shall be a standard quality commercial carrier of available plant food elements. A complete prepared and packaged material containing a minimum of 5% nitrogen, 10% phosphoric acid and 10% potash.

1. Each bag of fertilizer shall bear the manufacturer's guaranteed statement of analysis.

MATERIALS AND PERFORMANCE – SECTION 02212

TOPSOIL, SEEDING, AND MULCH

C. Seed mixtures shall be of commercial stock of the current season's crop and shall be delivered in unopened containers bearing the guaranteed analysis of the mix.

1. All seed shall meet the State standards of germination and purity.

C. Seed mix:

65%	Kentucky Blue Grass
20%	Perennial Rye Grass
15%	Fescue

E. The seed mix used on the interim cover shall be a quick germinating rye grass.

F. Mulch shall be stalks of oats, wheat, rye or other approved crops free from noxious weeds and coarse materials.

PART 3 - EXECUTION

3.01 INSTALLATION

A. The topsoil shall be applied in a single loose lift of not less than six-inches. No compaction is required or allowed.

1. Following placement of topsoil and prior to fertilizer application, all stones greater than 1-inch in diameter, sticks, and other deleterious material shall be removed.

B. The fertilizer shall be applied to the surface uniformly at the rate of 20 pounds per 1,000 square feet.

1. Following the application of the fertilizer and prior to application of the seed, the topsoil shall be scarified to a depth of at least 2 inches with a disk or other suitable method traveling across the slope if possible.

C. After the soil surface has been fine graded, the seed mixture shall be uniformly applied upon the prepared surface with a mechanical spreader at a rate specified by the seed manufacturer.

1. The seed shall be raked lightly into the surface.

2. Seeding and mulching shall not be done during windy weather.

D. Mulch (where used) shall be hand or machine spread to form a continuous blanket over the seed bed, approximately 2 inches in uniform thickness at loose measurement with a minimum of 90% surface coverage. Excessive amounts or bunching of mulch shall not be permitted.

MATERIALS AND PERFORMANCE – SECTION 02212

TOPSOIL, SEEDING, AND MULCH

1. Unless otherwise specified, mulch shall be left in place and allowed to decompose.

2. Any mulch that has not disintegrated at time of first mowing shall be removed.

E. Seeded areas shall be watered as often as required to obtain germination and to obtain and maintain a satisfactory sod growth. Watering shall be performed in such a manner as to prevent washing out of seed and mulch.

F. Hydroseeding may be accepted as an alternative method of applying fertilizer, seed and mulch. The Contractor must submit all data regarding materials and application rates to GE or GE's Representative for review.

3.02 MAINTENANCE

A. All erosion rills or gullies within the topsoil layer shall be filled with additional approved topsoil and graded smooth, and reseeded and mulched.

B. The Contractor shall also be responsible for repairs to all erosion of the seeded areas until all new grass is firmly established and reaches a height of not less than 4 inches. All bare or poorly vegetated areas must be reseeded and mulched.

- END OF SECTION -

MATERIALS AND PERFORMANCE – SECTION 02222

SOIL FILL MATERIALS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work Specified

1. Work under this section shall include, but not necessarily be limited to, supplying all labor and materials, excavating, transporting, dumping, spreading, and compacting Soil Fill Materials in the locations and to the depth shown on the Technical Drawings and/or as directed by GE or GE's Representative.

B. Applicable Standards and Specifications

1. American Society for Testing Materials (ASTM).

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section MP-02212 - Topsoil, Seeding and Mulch

1.03 SUBMITTALS

A. Refer to Sections 3.2 and 3.27 of the Conditions of Work.

PART 2 - PRODUCTS

2.01 MATERIALS

A. General Fill shall be the type listed below:

Type 1: Interim Cover Material

a. Interim soil cover material shall consist of material free from excessive amounts of clay and silt, stones larger than 2-inches, large sticks and roots, and other deleterious materials. Material shall have a pH and organic content sufficient to promote a strong vegetative growth.

PART 3 - EXECUTION

3.01 PLACEMENT

A. In general, soil fill material shall be placed and compacted in a single horizontal layer not less than 3 inches in thickness. The subgrade for placement of soil fill material shall be approved by GE or GE's Representative. Soil fill material shall not be placed on ground, which shall not support the weight of construction equipment.

B. Trucks or other heavy equipment shall not be operated over the fill layer once the minimum thickness of soil fill has been placed.

C. Once placed the Contractor shall track the slope with a bulldozer perpendicular to the slope to provide ridges along the slope to help minimize erosion.

- END OF SECTION -

ATTACHMENT 1

TECHNICAL DRAWINGS

ATTACHMENT 1
TECHNICAL DRAWINGS

2001 OPCA CONSOLIDATION ACTIVITIES

REFERENCE: PITTSFIELD EAST, MASS. USGS QUAD., 7.5 MIN. SERIES, 1988

LOCATION MAP

2000' 0 2000'

04/01 SYR-DS4-DJH LBR YCC MRC
20185039/20185C01.CDR

May 2001

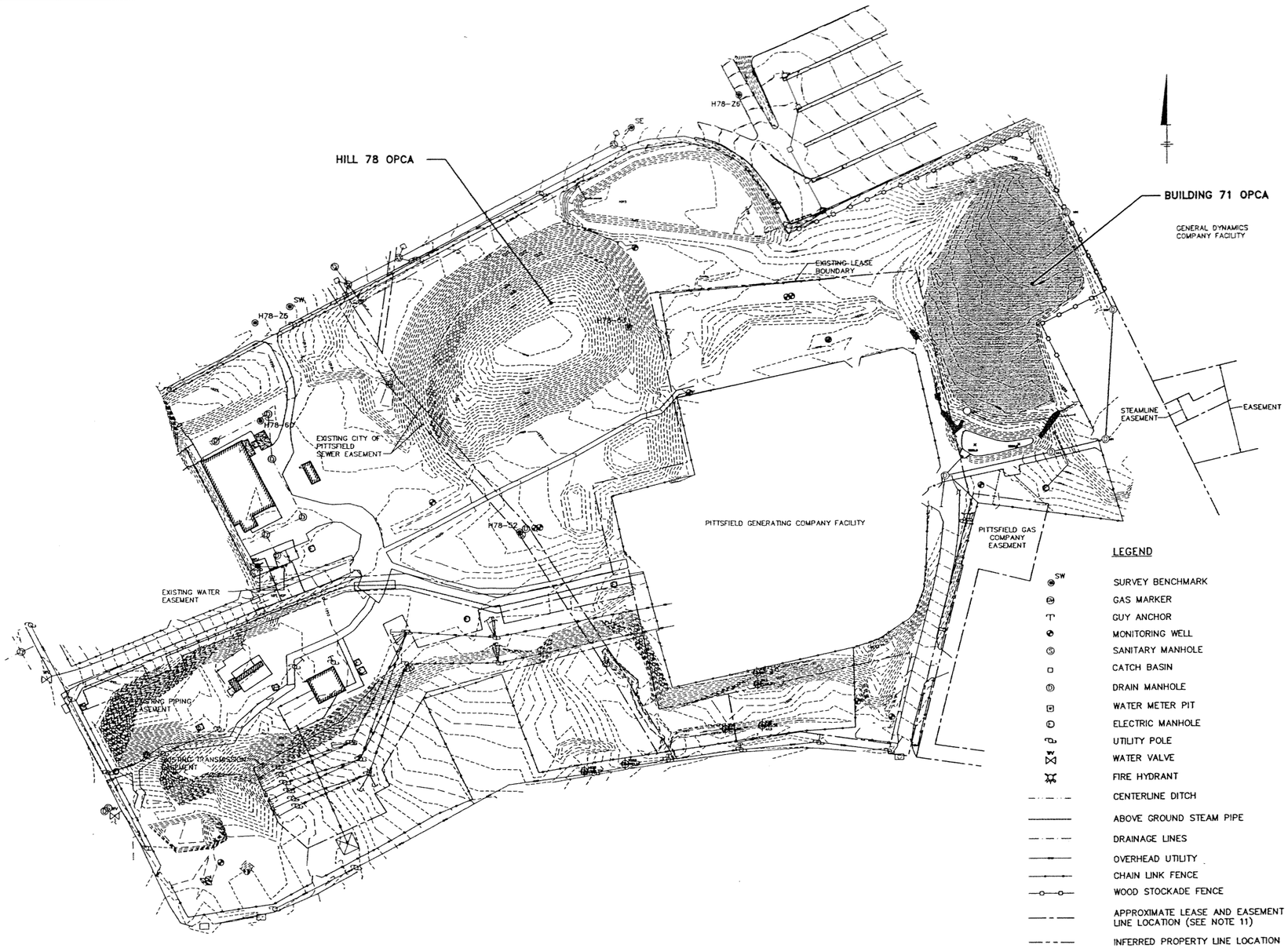
PREPARED FOR:

General Electric Company
Pittsfield, Massachusetts

PREPARED BY:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

INDEX TO DRAWINGS



LEGEND

- SURVEY BENCHMARK
- GAS MARKER
- GUY ANCHOR
- MONITORING WELL
- SANITARY MANHOLE
- CATCH BASIN
- DRAIN MANHOLE
- WATER METER PIT
- ELECTRIC MANHOLE
- UTILITY POLE
- WATER VALVE
- FIRE HYDRANT
- CENTERLINE DITCH
- ABOVE GROUND STEAM PIPE
- DRAINAGE LINES
- OVERHEAD UTILITY
- CHAIN LINK FENCE
- WOOD STOCKADE FENCE
- APPROXIMATE LEASE AND EASEMENT LINE LOCATION (SEE NOTE 11)
- INFERRED PROPERTY LINE LOCATION
- INDEX CONTOUR LINE
- INTERMEDIATE CONTOUR LINE
- AREA OF EXISTING TARPAULINS

NOTES:

1. BASE MAP INFORMATION SHOWN ON THIS DRAWING WAS DEVELOPED FROM FIELD SURVEY DATA OBTAINED BY BLASLAND, BOUCK & LEE, INC. ON 2/10/99; AS-BUILT FIELD SURVEY OBTAINED BY MAXIMILLIAN TECHNOLOGIES AND PREPARED BY HILL ENGINEERS ON 1/19/00 (CADD FILE NO. MX-36-2.DWG); FIELD SURVEY PERFORMED BY HILL ENGINEERS ON 3/8/00 AND 3/14/00 (CADD FILE NO. SRV-4541.DWG) REVISION A; AND FIELD SURVEY OF THE BUILDING 71 OPCA, ADJACENT AREA TO THE WEST, AND THE STORMWATER BASIN TO THE NORTHWEST OBTAINED BY SK DESIGN GROUP, INC. ON 12/8/00 (PROJECT NO. 000156). CERTAIN FEATURES SHOWN MAY BE APPROXIMATE SINCE SNOW AND ICE ACCUMULATIONS WERE PRESENT AT TIME OF CERTAIN SURVEYS.
2. ELEVATIONS SHOWN ARE REFERENCED TO NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).
3. HORIZONTAL DATUM IS REFERENCED TO THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (NAD 1927).
4. CONTOUR INTERVAL EQUALS 1 FOOT.
5. CONTRACTOR SHALL VERIFY THE PRESENCE AND LOCATION OF ALL ABOVE GROUND AND UNDERGROUND SITE FEATURES IN THE VICINITY OF PROPOSED CONSOLIDATION ACTIVITIES PRIOR TO COMMENCEMENT OF SITE WORK. ADDITIONAL SITE FEATURES MAY BE PRESENT WHICH ARE NOT SHOWN ON THIS DRAWING. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH GE TO DETERMINE THE PRESENCE AND LOCATION OF SUCH FEATURES SHOULD THEY EXIST (AND WHICH MAY NOT BE SHOWN) AND THE LOCATION OF ON-SITE EASEMENTS, LEASE LINES, AND RIGHT-OF-WAYS.
6. CONTRACTOR SHALL ASSUME EXISTING FENCING AT PERIMETER OF SITE IS GE's PROPERTY LINE. NO WORK SHALL BE PERFORMED OUTSIDE THE PROPERTY LINE WITHOUT GE's PRIOR APPROVAL.
7. CONTRACTOR SHALL FURNISH AND PLACE PROPER GUARDS FOR PREVENTION OF ACCIDENTS,
8. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THIS CONTRACT. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF, AND SHALL PROVIDE THE NECESSARY PRECAUTION TO PREVENT DAMAGE, INJURY, OR LOSS TO ALL EMPLOYEES ON THE WORK SITE AND ANY OTHER PERSONS WHO MAY BE AFFECTED THEREBY.
9. EXISTING SURFACES OR FEATURES NOT SPECIFIED FOR MODIFICATION THAT ARE DAMAGED OR DESTROYED AS A RESULT OF WORK PERFORMED UNDER THIS CONTRACT SHALL BE RESTORED BY THE CONTRACTOR TO THEIR PRECONSTRUCTION CONDITION AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF GE, IN A TIMELY MANNER.
10. ALL CONTRACTOR RELATED ACTIVITIES SHALL BE PERFORMED IN A MANNER WHICH ALLOWS FOR ALL NECESSARY OPERATING ACTIVITIES ASSOCIATED WITH THE PITTSFIELD GENERATING COMPANY AND GENERAL DYNAMICS COMPANY FACILITIES. ANY WORK DEEMED NECESSARY WHICH MAY AFFECT THOSE FACILITIES SHALL BE BROUGHT TO THE ATTENTION OF GE PRIOR TO COMMENCEMENT OF SUCH WORK. GE SHALL PROVIDE THE CONTRACTOR WITH AUTHORIZATION TO PROCEED PROVIDED GE AND THE AFFECTED PARTY(IES) DEEM THE ACTION NECESSARY AND ACCEPTABLE.
11. LEASE AND EASEMENT LINE LOCATIONS SHOWN ON THIS DRAWING DIGITIZED FROM PLAN PREPARED BY DESIGN GROUP, INC. ENTITLED "PLAN OF LAND SURVEYED FOR GENERAL ELECTRIC COMPANY", DATED FEBRUARY 18, 1993 (PROJECT NO. 930004) AND ARE APPROXIMATE ONLY.

X: 2185X00, 20185X02.DWG
LMAN: 4/4/01
P: STD-PCP/DL, D2BL
5/2/01 SYR 54-NES AK JER
20185039/20185G01.DWG

Graphic Scale
100' 0 100' 200'

No.	Date	Revisions	Init

Project Mgr. _____
Designed by _____
Drawn by _____
Checked by _____
Prof. Eng. _____
PE License _____

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

GENERAL ELECTRIC COMPANY • PITTSFIELD, MASSACHUSETTS
2001 OPCA CONSOLIDATION ACTIVITIES

EXISTING SITE PLAN

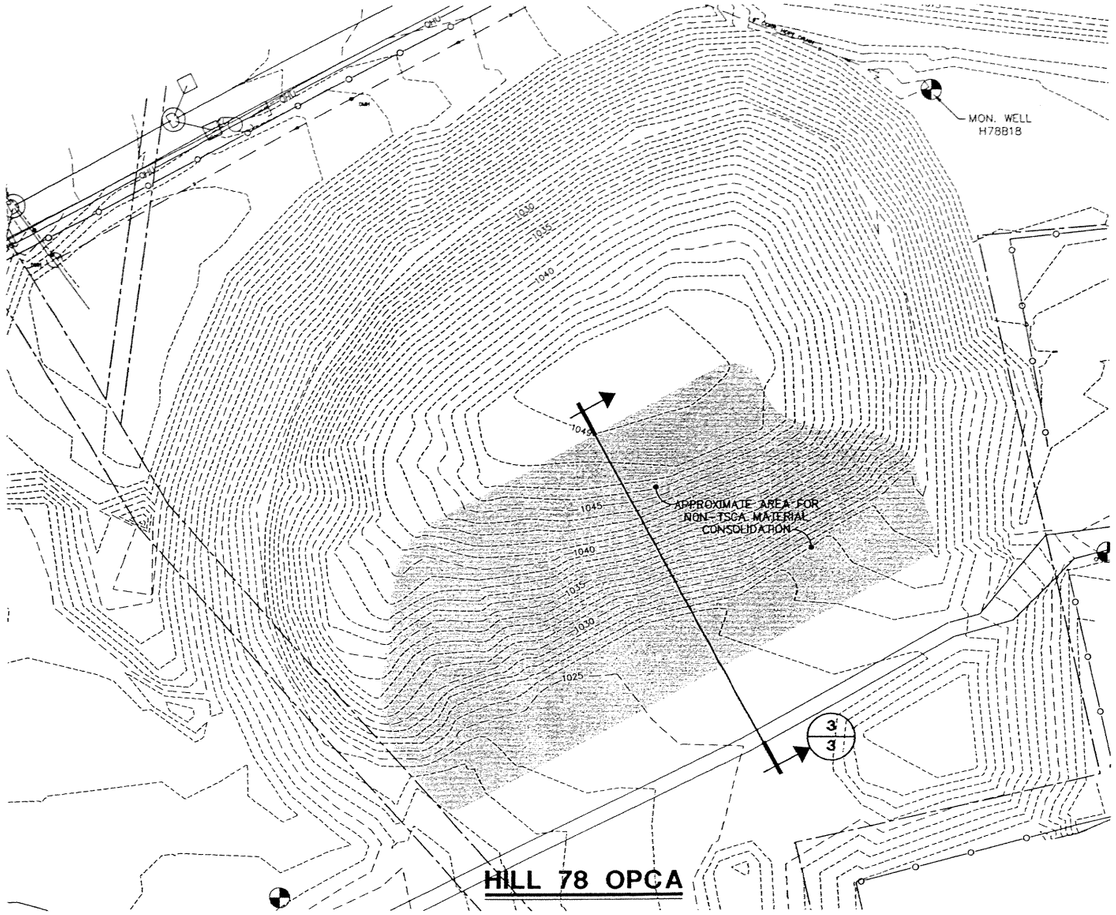
GENERAL

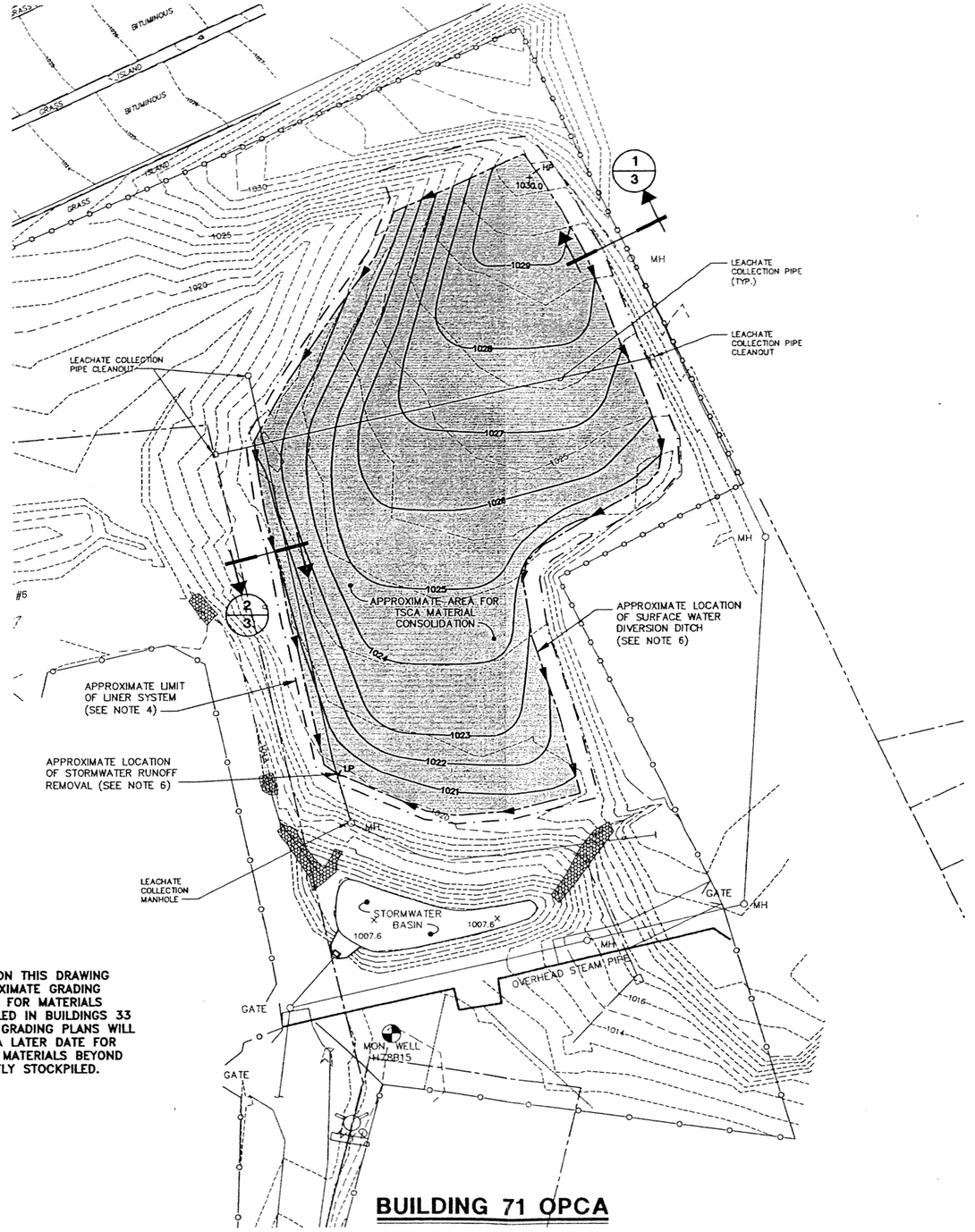
File Number
201.85.XXF

Date
MAY 2001

Blasland, Bouck & Lee, Inc.
Corporate Headquarters
6723 Towpath Road
Syracuse, NY 13214
315-446-9120

1





NOTES:

1. REFER TO DRAWING NO. 1 FOR ADDITIONAL BASE MAP INFORMATION.
2. CONTRACTOR SHALL NOT DAMAGE THE EXISTING BUILDING 71 OPCA LINER SYSTEM DURING PLACEMENT OF CONSOLIDATION MATERIALS. ANY DAMAGE TO THE LINER SYSTEM AS A RESULT OF THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF GE.
3. CONTRACTOR SHALL USE "LOW-GROUND PRESSURE" EQUIPMENT TO PLACE CONSOLIDATION AND INTERIM COVER MATERIALS.
4. LIMIT OF EXISTING BUILDING 71 OPCA LINER SYSTEM DEPICTED IS APPROXIMATE ONLY. CONTRACTOR SHALL FIELD VERIFY ACTUAL LIMIT PRIOR TO GRADING AND PLACING OF CONSOLIDATION MATERIALS TO ENSURE PLACEMENT IS WITHIN THE LIMIT OF THE LINER SYSTEM.
5. SURFACE WATER DIVERSION DITCH IS INTENDED TO COLLECT AND CONVEY RUNOFF DURING FILL OPERATIONS TO A LOW POINT AT THE SOUTH EAST CORNER OF OPCA 71.
6. CONTRACTOR SHALL PROVIDE A MEANS OF REMOVING COLLECTED RUNOFF FROM DIVERSION DITCH. COLLECTED RUNOFF SHALL BE TRANSFERRED TO EXISTING LEACHATE COLLECTION MANHOLE.

LEGEND:

- 1020 — EXISTING INDEX CONTOUR LINE
- EXISTING INTERMEDIATE CONTOUR LINE
- EXISTING PERIMETER DRAINAGE DITCH
- EXISTING STOCKADE FENCE
- EXISTING CULVERT
- 1 / 3 — DETAIL/SECTION REFERENCE NUMBER / DRAWING REFERENCE NUMBER
- APPROXIMATE AREA FOR MATERIAL CONSOLIDATION
- +HP +LP — PROPOSED HIGH POINT/LOW POINT

GRADING PLANS ON THIS DRAWING INDICATE APPROXIMATE GRADING CONFIGURATIONS FOR MATERIALS CURRENTLY STOCKPILED IN BUILDINGS 33 AND 65. ADDITIONAL GRADING PLANS WILL BE PROVIDED AT A LATER DATE FOR CONSOLIDATION OF MATERIALS BEYOND THOSE CURRENTLY STOCKPILED.

X: 20185X00, 20185X04.DWG
LMAN: 4/4/01
P: STD-PCP/DL
5/2/01 SYR 54-NES NES JER
20185039/20185G02.DWG

Graphic Scale
40' 0 40' 80'

No.	Date	Revisions	Init

Project Mgr. _____
Designed by _____
Drawn by _____
Checked by _____
Prof. Eng. _____
PE License _____

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engineers & scientists

GENERAL ELECTRIC COMPANY • PITTSFIELD, MASSACHUSETTS
2001 OPCA CONSOLIDATION ACTIVITIES

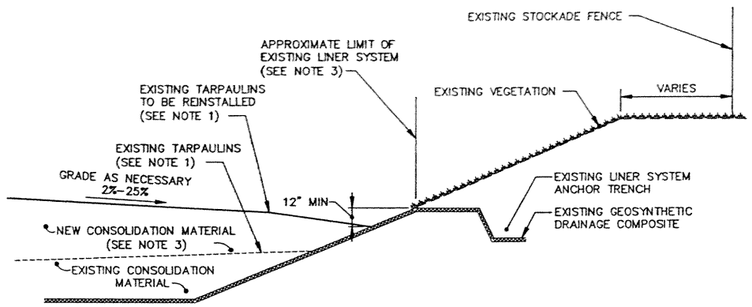
BUILDING 71 & HILL 78 OPCA CONSOLIDATION PLAN

GENERAL

File Number
201.85.XXF

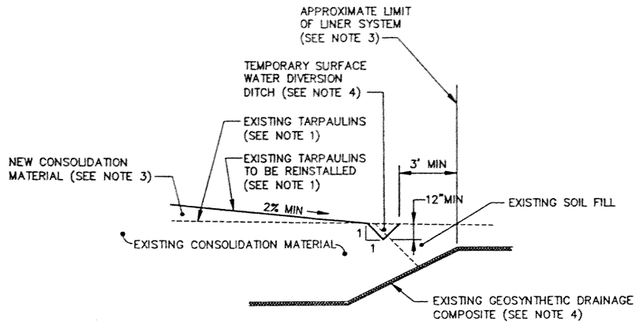
Date
MAY 2001

Blasland, Bouck & Lee, Inc.
Corporate Headquarters
6723 Towpath Road
Syracuse, NY 13214
315-446-9120



TYPICAL PERIMETER EMBANKMENT SECTION
BUILDING 71 OPCA (1)

GRAPHIC SCALE 0 4' 8'

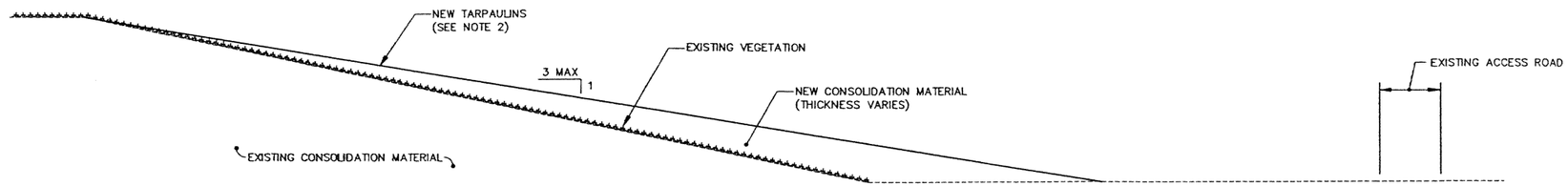


TYPICAL PERIMETER BERM SECTION
BUILDING 71 OPCA (2)

GRAPHIC SCALE 0 4' 8'

NOTES:

1. CONTRACTOR SHALL REMOVE EXISTING TARPAULINS FROM BUILDING 71 OPCA IMMEDIATELY PRIOR TO PLACING CONSOLIDATION MATERIAL. CONTRACTOR SHALL REINSTALL EXISTING TARPAULINS AT THE END OF EACH WORK DAY, BEFORE RAIN EVENTS, AND IMMEDIATELY FOLLOWING COMPLETION OF CONSOLIDATION MATERIAL PLACEMENT. TARPAULINS SHALL BE PROPERLY ANCHORED TO RESIST WIND FORCES AND PREVENT STORMWATER FROM CONTACTING CONSOLIDATION MATERIAL. UPGRADIENT EDGES OF BUILDING 71 OPCA TARPAULINS SHALL BE KEYED A MINIMUM OF 6" INTO THE EXISTING EMBANKMENT.
2. CONTRACTOR SHALL PROVIDE AND INSTALL TARPAULINS ON NEW CONSOLIDATION MATERIAL PLACED IN HILL 78 OPCA. TARPAULINS SHALL BE INSTALLED AT THE END OF EACH WORK DAY, BEFORE RAIN EVENTS, AND IMMEDIATELY FOLLOWING COMPLETION OF CONSOLIDATION MATERIAL PLACEMENT. TARPAULINS SHALL BE PROPERLY ANCHORED TO RESIST WIND FORCES AND PREVENT STORMWATER FROM CONTACTING NEW CONSOLIDATION MATERIAL.
3. REFER TO DRAWING NO. 2 FOR APPROXIMATE LIMITS OF BUILDING 71 OPCA LINER SYSTEM. CONTRACTOR SHALL NOT DAMAGE THE EXISTING BUILDING 71 OPCA LINER SYSTEM DURING PLACEMENT OF CONSOLIDATION MATERIALS. ANY DAMAGE TO THE LINER SYSTEM AS A RESULT OF THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF GE.
4. CONTRACTOR SHALL EXCAVATE A TEMPORARY SURFACE WATER DIVERSION DITCH AT THE PERIMETER OF THE BUILDING 71 OPCA PRIOR TO PLACING NEW CONSOLIDATION MATERIALS TO PREVENT STORMWATER RUNOFF FROM MIGRATING BEYOND THE LIMITS OF THE LINER SYSTEM. CONTRACTOR SHALL BACKFILL TEMPORARY SURFACE WATER DIVERSION DITCH FOLLOWING COMPLETION OF CONSOLIDATION MATERIAL PLACEMENT.



TYPICAL SLOPE SECTION
HILL 78 OPCA (3)

GRAPHIC SCALE 0 10' 20'

GRADING SECTIONS ON THIS DRAWING INDICATE APPROXIMATE GRADING CONFIGURATIONS FOR MATERIALS CURRENTLY STOCKPILED IN BUILDINGS 33 AND 65. ADDITIONAL GRADING SECTIONS WILL BE PROVIDED AT A LATER DATE FOR CONSOLIDATION OF MATERIALS BEYOND THOSE CURRENTLY STOCKPILED.

X: 20185X00.DWG
L: ON=*, OFF=REF
P: STD-PCP/DL
5/2/01 SYR 54-NES NES JER
20185039/20185G03.DWG

Graphic Scale
4' 0 4' 8'
10' 0 10' 20'

No.	Date	Revisions	Init

Project Mgr. _____
Designed by _____
Drawn by _____
Checked by _____
Prof. Eng. _____
PE License _____

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engineers & scientists

GENERAL ELECTRIC COMPANY • PITTSFIELD, MASSACHUSETTS
2001 OPCA CONSOLIDATION ACTIVITIES
SECTIONS
GENERAL

File Number 201.85.XXF
Date MAY 2001

Blasland, Bouck & Lee, Inc.
Corporate Headquarters
6723 Towpath Road
Syracuse, NY 13214
315-446-9120

ATTACHMENT 2

PROJECT CHANGE ORDER REQUEST

PROJECT CHANGE ORDER REQUEST

Date:		Change Order No.:	
Project No.:		Site Name:	
Description/Reason For Change:			

Change Type:

_____ Added Scope _____ Unexpected Site Conditions _____ Operating Regs.
_____ Environmental Regulatory _____ Additional Quantities _____ Design Change
_____ Other: _____

Cost Estimate:

Description	Quantity	Units	Work Terms (Unit Price, T&M, LS)

Schedule Impact:

Originator: _____ Date: _____
Oversite: _____ Date: _____
Contractor: _____ Date: _____
Owner: _____ Date: _____

f:shared\changeorder\excel

ATTACHMENT 3

DAILY CONSTRUCTION ACTIVITIES REPORT

DAILY CONSTRUCTION ACTIVITIES REPORT

Project: GE Pittsfield - On-Plant Consolidation Activities		Sheet No. ___ of ___ Sheets Date _____
Contractor:	Contract No.:	Day of Week: S M T W T F S
Contractor's Supervisor:		
Weather:		Temperature: Min. Max.

Contractor's Activities, Visitors, Remarks, Problems Encountered, Corrective Measures Taken: _____

[over]

DAILYREP.WPD

ATTACHMENT 4

GENERAL ELECTRIC COMPANY - GUIDELINES FOR CLEANING INCIDENTALLY PCB-CONTAMINATED EQUIPMENT FOR SALE, REUSE, OR SCRAPPING

GUIDELINES

FOR

CLEANING INCIDENTALLY PCB-CONTAMINATED

EQUIPMENT

FOR SALE, REUSE OR SCRAPPING

General Electric Company
Corporate Environmental Programs
Fairfield, CT
June 1998

1.0 INTRODUCTION

Corporate Environmental Programs (CEP) has established general guidelines for the cleaning of industrial equipment that is incidentally contaminated with polychlorinated biphenyls (PCBs). This protocol establishes minimum standards and guidelines which should be used at GE sites in developing site-specific procedures to be implemented prior to internal transfer, sale or scrapping of equipment.

It is possible for industrial machinery, associated fixtures and tooling, nearby storage racks, cabinets, and furniture to have become contaminated with PCBs. This incidental contamination is generally related to the use or processing of dielectric fluid, heat transfer oil, lubricating oil and grease, and hydraulic oils which have historically contained PCBs. This protocol recommends cleaning and sampling methods for all such equipment prior to:

- transfer of the equipment to another GE location for reuse
- sale or donation of the equipment for reuse
- disposal of the equipment as scrap

The following topics are addressed in this protocol:

- 2.0 Scope of the Guidelines
- 3.0 GE Policy and Regulatory Requirements Applicable to Cleaning and Disposition of Incidentally PCB-Contaminated Industrial Equipment
- 4.0 Classification of Plant Areas
- 5.0 Characterization of Potential PCB Contamination
- 6.0 Cleaning Procedures
- 7.0 Verification Sampling and Re-cleaning
- 8.0 Storage and Transportation of Equipment Prior to and Following Cleaning
- 9.0 Use of Scrap Dealers for Equipment to be Smelted
- 10.0 Waste Management

2.0 SCOPE OF THE GUIDELINES

What These Guidelines Cover: These guidelines apply to the cleaning of industrial equipment that has become surficially or incidentally contaminated with PCBs as a result of historical use of PCBs. Generally, the types of industrial equipment covered by these guidelines include equipment as described above that has been used in production or warehouse areas of GE facilities and furniture located in office and other non-manufacturing or service areas of GE facilities.

What These Guidelines Do Not Cover: This protocol does not govern the cleaning of electrical equipment, such as transformers and switch gear, that may contain varying levels of PCBs. Because the federal PCB regulations contain specific requirements for draining and refilling electrical equipment, even certain equipment that contains less than 50 ppm PCBs, it is not appropriate to include electrical equipment in the scope of these guidelines. For information concerning guidelines on transfer of electrical equipment to other GE sites or third parties, contact CEP.

The other primary area not covered under this protocol is cleaning of building structures for continued reuse, sale or lease. Impending revisions to the PCB regulations will make significant changes to the regulatory framework governing PCB decontamination of building structures. When those revisions become effective, CEP will provide guidance on the rules governing building decontamination.

No GE property that contains PCB or other industrial contamination may be sold or leased without the approval of the Chairman of the Company. This policy extends to industrial buildings. Contact CEP for guidance on obtaining approval to sell or lease industrial facilities.

3.0 GE POLICY AND REGULATORY REQUIREMENTS APPLICABLE TO CLEANING AND DISPOSITION OF INCIDENTALLY PCB-CONTAMINATED INDUSTRIAL EQUIPMENT

PCBs are regulated by the federal Environmental Protection Agency (EPA) under a number of different statutes, including the Toxic Substances Control Act (TSCA), and under various state programs for hazardous substance/waste management. TSCA governs the use, processing, distribution and disposal of PCBs, and, therefore, dictates compliance requirements for reuse or disposal of incidentally contaminated industrial equipment.

Under the TSCA PCB regulations, industrial equipment may be moved from one GE facility to another or transferred through sale or donation to a third party, provided that the equipment is decontaminated in accordance with applicable EPA PCB spill cleanup

policies in effect at the time of decontamination. 40 C.F.R. §761.20(c)(5). Based on the PCB regulations, including applicable EPA cleanup policies, GE has adopted the following policy regarding industrial equipment. Such equipment may be:

- Sold or transferred for reuse if surface concentrations are < 10 ug/100 cm^2
- Scrapped for smelting if surface concentrations are < 100ug/100 cm^2
- In both of the above cases, any oil-containing reservoirs must be drained and contain residues < 1 ppm PCBs.

The following restrictions also apply to sale or transfer of decontaminated industrial equipment:

- Production equipment should generally not be sold to employees. Consult with CEP before selling any such equipment to employees.
- For production equipment sold to commercial entities:
    - The buyer must warrant that the equipment will be used only for its intended purpose.
    - If the equipment is or was located at a site that used PCBs in the manufacture or servicing of electrical equipment, the sale documents must contain a disclosure that the equipment has been cleaned and all test results are < 10 ug/100cm^2. If the equipment has any oil reservoirs that contained PCBs > 1 ppm PCB in the oil, the disclosure must indicate that oil reservoirs have been drained and flushed and any residue in the reservoir contains < 1 ppm PCBs.
- Computer hard drives that contain sensitive EHS information should be reformatted before they can be sold or donated. Consult with your Business Information Systems group before selling or donating any hard drives.

4.0 CLASSIFICATION OF PLANT AREAS

The first step in the equipment decontamination process is to classify the area in the facility where the equipment is or has been located to determine the required level of characterization of potential incidental PCB contamination. For purposes of this guidance, GE facilities are classified into the following 4 categories:

- Sites currently or formerly engaged in the manufacture and/or servicing of PCB-containing electrical equipment, such as transformers, capacitors or switch gear. These sites are further subdivided into:

  - Areas where PCBs were used or handled in the manufacturing/servicing process
  - Areas where PCBs were not used or handled in manufacturing or servicing
- Plant areas where production equipment is located that may contain PCBs in heat transfer, lubricating or hydraulic oil systems
- Areas near site utility systems where PCB-containing electrical equipment, compressors, or motors are located
- Non-manufacturing areas such as office, storage or warehouse space

Each site must consider these various types of areas in developing its equipment cleaning and sampling program. Sites, or portions of sites, with known pervasive PCB issues require a much more stringent program than sites that have a low potential for contamination. However, since low-level PCB contamination can be pervasive and persistent in many industrial settings, even low potential areas must undergo some type of screening-level sampling to verify the non-existence of incidental PCB contamination. Guidance on characterization of equipment and other items is provided below.

5.0 CHARACTERIZATION OF POTENTIAL PCB CONTAMINATION

The objective of these equipment cleaning guidelines is to document that the levels of any incidental PCB contamination, as determined using the sampling protocols in Appendices C and D, do not exceed the following clean-up standards:

- Surface concentrations < 10 ug/100 cm^2 for equipment to be transferred to another GE site or sold to a third party
- Surface concentrations < 100ug/100 cm^2 for equipment to be scrapped for smelting. (Beginning in 1999, GE sites must use only GE-approved scrap dealers. See Section 9.0 for further discussion of this issue.)
- In both of the above cases, any oil-containing reservoirs must be drained and contain residues < 1 ppm PCBs

Characterizing the extent of potential PCB incidental contamination must be done on a case-by-case basis. Site-specific factors to be considered include: the likelihood of the presence of PCBs at the site, or a portion of the site; the current and previous location of the equipment in the facility; the history of use of the area of the plant where the equipment is located; and, in cases of high volume disposition of small items such as hand tools or small metal parts, the number of pieces of equipment at issue.

Some types of industrial equipment have internal parts that may have been exposed to airborne PCB contamination but are difficult to access for testing and/or cleaning without disassembly. Examples include: fans, generators, blowers, motors, pumps, electrical panels, flexible wiring and tubing. With respect to equipment of this type that is or has been located in a portion of a site where PCBs were used or handled in manufacturing or servicing, the equipment should be assumed to be contaminated and require cleaning and verification sampling prior to release.

At sites or portions of sites where PCBs were not used in manufacturing or servicing, it may be more cost-effective to attempt to evaluate the need for disassembly and cleaning by performing characterization sampling to determine whether the equipment meets the cleanup standards. One suggested way to characterize internal or hard-to-access parts is to sample surfaces, especially horizontal ones, surrounding or near the internal parts. For example, if the item is an electrical panel with significant internal wiring, samples could be taken from horizontal and vertical metal surfaces outside and inside the panel. The exterior of a blower could be sampled to evaluate the probable concentrations on the interior surfaces. For numerous pieces of like equipment, disassembly and sampling of a representative number of pieces might be a means of characterizing the entire lot. Although these are possible suggested approaches, in these situations, case-by-case determinations will be necessary, and the site will need to weigh the cost-effectiveness of cleaning and sampling as opposed to disposal of the items as PCB waste.

5.4 Equipment Used in Site Remediation

At sites where active remediation is taking place, excavation, well drilling and other construction equipment may become surficially contaminated with PCBs. While the PCB regulations do not explicitly address the issue of decontaminating such equipment, a conservative interpretation of the regulations would require that heavy equipment used in excavating, moving or hauling PCB-contaminated soil must be < 10 ug/100 cm^2 before it can be reused in other non-PCB remediation activities. The PCB Megarule will likely address the issue of decontamination standards for materials used in PCB cleanups. Once the regulation has been finalized, this guidance will be revised to reflect EPA requirements. In the meantime, sites that are subject to an enforcement action should address this issue in their site work plans. In the absence of a consent order with a regulatory authority, a site engaged in remediation activities should institute a procedure to ensure that contractor drilling and excavation equipment is kept on site during the project and cleaned and sampled before permanently leaving the site.

5.5 Equipment Tagging and Record Keeping

Prior to initiating any sampling or cleaning, each piece of equipment scheduled for liquidation should be tagged for identification. An example tag is provided in Appendix A. This tag will provide an easy reference to the key sampling and cleaning activities. The tag must be signed by an EHS representative prior to shipment of the equipment.

As a companion to the tagging system, a log sheet for each piece of equipment should also be used to record each sampling event and the corresponding analytical results. An example Equipment Liquidation Log is provided in Appendix B.

When the final verification results are documented as being below the cleanup standards, a site EHS representative (or designee) must sign both the tag and log sheet to indicate that the equipment is cleared by EHS for liquidation.

6.0 CLEANING PROGRAM

The objective of the cleaning program is to reduce surface PCB contamination on and in equipment to acceptable levels for reuse, sale or scrapping. As noted above, site-specific considerations will dictate whether cleaning is required.

Cleaning of incidentally contaminated PCB equipment must be conducted by outside contractors that have received OSHA 40-hour Hazwoper training. A recommended cleaning procedure is presented in Appendix E. This procedure has been used successfully at a number of GE locations. This procedure involves manual degreasing of equipment surfaces and has been developed to minimize the use of hazardous solvents and the generation of solid and liquid wastes. Each site should develop a similar procedure incorporating site-specific items for health and safety, personal protective equipment and waste management. *As a general rule, cleaning should be performed manually with minimal generation of liquid waste. If a site plans to use a high-power wash process to clean surficially-contaminated equipment, it should consult with CEP before initiating the project.*

7.0 VERIFICATION SAMPLING AND RECLEANING

7.1 Verification Sampling

After characterization sampling and cleaning, a subsequent round of sampling will be necessary to verify that the equipment has been adequately cleaned. The goal of verification sampling is to ensure that the cleaned items meet the applicable standards and that the sampling performed is representative of the entire piece of equipment. To that end, sampling should target areas most likely to have residual contamination. Also, any PCB concentrations detected should be consistent across the equipment. For example, sampling that yields several non-detect results and one or two results in the range of 8-9 ug/100 cm^2 on a piece of equipment intended for resale may not provide adequate verification that the entire piece of equipment is below the cleanup standard of 10 ug/100 cm^2. The need for consistent results should be kept in mind in making determinations on how to take verification samples and evaluate their results. Further guidance is provided below on addressing consistency of sample results.

The following are the minimum number of samples required for verification sampling:

Minimum Wipe Sampling Frequency for Equipment to be Reused, Sold or Scrapped for Smelting		
Type of Equipment	*Cleaning for Reuse or Sale*	*Cleaning for Smelting*
Main Equipment and Associated Large Fixtures/Tooling	1 per 50 square feet of surface area Min. of 3 Samples	1 per 100 square feet of surface area Min. of 3 Samples
Associated small tooling/machine parts	Case-by-Case Based on Size of Parts --Evaluate Possible Approaches and Choose Best One for Situation	Case-by-Case Based on Size of Parts --Evaluate Possible Approaches and Choose Best One for Situation
Oil Reservoirs	1 Sample Per Reservoir	1 Sample Per Reservoir

The actual surface area of a piece of equipment may be difficult to measure or estimate. The sampling frequencies suggested above are based on the surface area of a hypothetical "box" with sufficient size to contain the equipment. For example, if a piece of equipment could fit in a box 20 feet long by 5 feet high by 10 feet deep, the estimated surface area would be 700 square feet and would require 14 samples for reuse or 7 samples for smelting (2 sides at 20 x 5 = 200; 2 sides at 5 x 10 = 100; 2 sides at 20 x 10 = 400).

For oddly shaped pieces, multiple boxes may be used to estimate the various surface areas. For example, the surface area of a tall vertical boring mill might be better represented by enclosing the base in one box and the vertical spindle in another. Likewise, the surface area of a bridge crane system might be better estimated using one box for each of the long crane rails and a third box for the cross rails and motor. *The surface area estimate for sampling purposes is the sum of the surface areas of all boxes. In counting sides, all six sides, including the base of the box, must be counted.* The surface area of equipment that is cut up into smaller pieces for ease of cleaning and disposal may be estimated prior to the piece getting cut up. However, the cut-up pieces need to be tracked together during the cleaning and verification sampling process.

Sampling small hand tools and parts presents unique verification sampling issues. First, some parts, such as nuts, bolts or other small pieces of metal, may not have an adequate surface area to obtain a valid sample of 100 cm^2 (4" x 4"), as required by the EPA wipe sample protocol. Second, these parts are often placed in totes or bins for cleaning in a high power wash operation such that the total surface area of all the parts in the bin is not likely to correlate with the surface area of the bin.

Due to the variety of scenarios that can arise with respect to small or hand tool cleaning, case-by-case evaluations will be required to determine how verification

sampling should be conducted. For parts that have enough surface area to sample, one approach might be to sample a certain percentage (not less than 10%) of the parts in the bin. Another possible approach would be to add up the surface areas of the parts and take a sufficient number of samples to meet the sampling frequency requirement in this section. For pieces that do not have 100 cm^2 surface area, it might be appropriate to perform a solvent extraction of a batch of parts whose composite surface areas make up 100 cm^2. It should be recognized that, by immersing the parts directly in the solvent (rather than immersing the gauze used to wipe the part), the analytical results might be higher than they otherwise would be. Another possible approach could involve taking a wipe sample that is less than 100 cm^2 and then multiplying by the appropriate factor to reflect a valid 100 cm^2 sample. It should be noted that issues regarding reliable detection limits could arise as a result of using a factor to account for the less than 100 cm^2 sample size.

These minimum sampling frequencies are provided as guidelines only. Depending on the type of equipment and the nature of the industrial setting, more samples may be appropriate. These frequencies are also based upon the assumption that the sampling program will be biased in favor of areas of the equipment with a higher likelihood of unacceptable levels of contamination.

7.2 Re-Cleaning

If any of the verification sample results exceed the applicable cleanup standards, re-cleaning and re-sampling is required. With respect to pieces to be sold for reuse whose analytical results are <u>below</u> the cleanup standards, results that indicate inconsistent concentrations, particularly levels that are only a few micrograms below the cleanup standard, trigger a review of the need to re-clean or perform additional sampling. The excel spreadsheet contained in Appendix 1 of this protocol should be used to determine whether sample results are adequately consistent to allow release of the equipment or whether further cleaning or sampling is required.

<u>Determining the Area to be Re-Cleaned</u>. Evaluating what part of a piece of equipment must be re-cleaned requires a case-by-case determination using best professional judgment. Relevant factors to consider include:

- Nature of the surface area, e.g., stained or corroded
- Size of the item and homogeneity of surface areas
- Consistency of sample results
- Number of samples taken and their location on the piece
- Number of pass v. failed samples

The most conservative approach is to re-clean the entire piece. In the case of smaller parts, including pieces cut up from a larger piece and totes or bins of small hand tools,

this is the preferred course of action. However, depending on the situation, as defined by site-specific factors such as those listed above, it may not be necessary to re-clean the entire piece.

For example, say a site has completed cleaning of a lathe it wishes to sell for reuse and, of the 6 samples taken, all are under 10 ug/100 cm^2 except for 2. One of the samples is from an area that had staining and was difficult to clean, and the other is from another part of the lathe that did not have any unusually dirty or problematic surfaces. It is likely that the first elevated result can be addressed through further cleaning of the stained area. With respect to the second result, one course of action might be to identify an area for re-cleaning, based on the locations and concentrations of the <10 ug results, perform the re-cleaning, and take more than the minimum required samples in the area that was re-cleaned to document the effectiveness of the re-cleaning.

Whatever approach is chosen, the guiding principle in determining the area to be re-cleaned is to attempt to identify those portions of the equipment (or in the case of small parts, the types of parts in the bin or tote) that are most likely to be contaminated.

8.0 STORAGE AND TRANSPORTATION OF EQUIPMENT PRIOR TO AND FOLLOWING CLEANING

8.1 Storage

Equipment awaiting cleaning that is known to contain surface contamination > 10 ug/100 cm^2 must be stored in an area that meets the requirements of the PCB regulations:

- adequate roof and walls to prevent rain water from reaching the stored items;
- floor with continuous curbing and minimum 6-inch curb;
- no drain valves, floor drains, expansion joints, sewer lines or other openings that would permit liquid to flow from the curbed area;
- floors and curbing constructed of continuous smooth and impervious materials such as Portland cement concrete or steel; and
- not located at a site that is below the 100-year flood plain

Storage inside a building meets the first requirement, provided the remainder of the requirements listed above are met.

Following cleaning, equipment should be covered or shrink wrapped to prevent airborne contamination during storage.

8.2 Transfer of Equipment Between GE Sites

If equipment is known to have surficial contamination > 10 ug/100 cm^2, it cannot be shipped from the site without first being cleaned to < 10 ug/100 cm^2. If a site wishes to transfer equipment from one GE site to another for cleaning, does not know whether the equipment is surficially contaminated, but suspects that contamination may be present, samples should be taken to evaluate the equipment. If contamination > 10 ug/100 cm^2 is confirmed, the equipment cannot be shipped from the site prior to being cleaned to < 10 ug/100 cm^2.

All equipment that is shipped, whether pre- or post-cleaning, *must be drained of all free liquids and covered during transport.*

9.0 USE OF SCRAP DEALERS FOR EQUIPMENT TO BE SMELTED

CEP is in the process of auditing scrap dealers to be used by GE facilities which plan to send equipment for smelting. Please contact Bob Scarberry at CEP (8*229-3077) for a current list of scrap dealers that have been audited to date. *Beginning in 1999, all GE sites must use only GE-approved scrap dealers for disposal of equipment through smelting.*

10.0 WASTE MANAGEMENT

All PCB-contaminated waste generated during equipment cleaning should be managed through the existing site industrial/hazardous waste management program, using CEP-approved transporters and disposal facilities.

Equipment cleaning waste that contains PCBs > 50 ppm or resulted from the cleanup of a PCB material with an original source concentration > 50 ppm or > 10 ug/100 cm^2, must be managed as TSCA PCB waste. PCB provisions that must be met include labeling, storage, inspection, shipping and disposal requirements. In some states, such waste must also be managed as a RCRA hazardous waste. Consult your state regulations to determine the applicability of state hazardous waste provisions.

References

Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup, EPA-560/5-86-017; May 1986

Verification of PCB Spill Cleanup by Sampling and Analysis, EPA-560/5-85-026; August 1985

Wipe Sampling and Double Wash/Rinse Cleanup as Recommended by The Environmental Protection Agency PCB Spill Cleanup Policy, John Smith, PCB Disposal Section, Chemical Regulation Branch, EPA; June 23, 1987 Revised and Clarified on April 18, 1991

Appendix A

Example Equipment Tag

Equipment Name:_____

Manufacturer:_____

Model:_____

Serial #:_____

Catalog Number:_____

Location:_____

(last installed)

Cleaning Dates

_____ _____ _____ _____

Sampling Dates

_____ _____ _____ _____

Cleared for Shipment (EHS)

_____

Name Date

Appendix B
EQUIPMENT LIQUIDATION LOG

Equipment Identification

Equipment Description:_____
Location:_____
Manufacturer:_____ Tag #:_____
Model:_____

Does the equipment contain an oil/hydraulics system? Yes___ No:___ Integral___, Remote___
Does the equipment contain grease packings ? Yes___ No:___

Sampling Results

Surface Wipes

Date:_____
Result:_____
Date:_____
Result:_____
Date:_____
Result:_____
Date:_____
Result:_____
Date:_____
Result:_____
Date:_____
Result:_____
Date:_____
Result:_____
Date:_____
Result:_____
Date:_____
Result:_____
Date:_____
Result:_____

Oil Reservoirs

Date:_____
Result:_____
Date:_____
Result:_____
Date:_____
Result:_____
Date:_____
Result:_____

Grease Packing

Date:_____
Result:_____
Date:_____
Result:_____
Date:_____
Result:_____
Date:_____
Result:_____

Notes:_____

Cleaning

Oils/Grease Drained/Removed by:_____
Date:_____
Equipment Cleaned by:_____
Date:_____

Notes:_____

Clearance

Cleared for Liquidation. Name:_____
Signature:_____

Date:_____

Appendix C: Procedure for Sampling Oil Reservoirs

This method is based on the EPA requirements for testing the PCB content of electrical equipment oils and waste oils (40 CFR 761) and is derived from ASTM Method D 923-81, Sampling Electrical Insulating Liquids.

Safety Precautions

The general plant safety requirements (safety glasses, gloves, etc.) shall be followed during all sampling and cleaning procedures.

Sampling Materials

1. glass sample vials
2. polyethylene or Teflon™ tubing, 1/4" ID
3. disposable pipettes (polyethylene)
4. latex gloves
5. containment materials

Sample Procedure

Mark the vial with a unique number corresponding to the equipment number {equipment ID#} - {sample number}.

1. Put on latex gloves
2. Collect a sample using one of the following techniques

   From a fill port
   Use a disposable pipette to withdraw a sample of oil from the fill port. Place the sample in the sample vial.

   From a drain plug
   Place a container of sufficient size to hold the contents of the reservoir under the drain plug. Flush enough oil from the drain port to remove any sludge or sediment prior to collecting an oil sample.

Complete the chain-of-custody form and send samples to an approved lab.
Fill out the equipment tag and log sheet.

Quality Assurance/Quality Control

QA/QC must be maintained throughout the sampling program. Only properly trained technicians should collect samples. Extreme care should be taken to prevent contamination during sampling. A new pair of gloves must be used for each sample. Keep sample vial closed unless sample is being added. Do not touch the inside of the container. Do not send oil and wipe samples together. Use separate shipping packages.

Appendix D
Wipe Sampling Procedure

This method was adapted from TSCA "Inspection Manual" Part 1, Volume 1 and 2, and from the PCB Sampling Procedures presented in Verification of PCB Spill Cleanup by Sampling and Analysis by the Midwest Research Institute. This method measures the amount of PCB's on a non-porous surface area of 100 square centimeters (4"x4").

Safety Precautions

Before a piece of equipment can be sampled, it must be disconnected and disabled in accordance with standard Energy Control and Power Lock Out Procedures. All energy sources including stored energy must be removed prior to sampling.

The general plant safety requirements shall be followed during all sampling and cleaning procedures.

Sampling Materials

Many laboratories can supply wipe sampling kits consisting of sterile pads, pre-soaked with hexane, in a pre-cleaned laboratory vial. If these are unavailable, the individual components can be assembled as follows:

1. Gauze, Johnson & Johnson sterile pads, individually wrapped. Do not use non-stick gauze; it has a plastic coating.

2. Glass vial with Teflon™ lined lid.

3. Stainless steel forceps, hemostats or new & clean needle nose pliers.

4. Pesticide grade hexane(s).

5. Template: 10cm x 10cm or 4" x 4". Use white poster paper. Dispose of template after single use.

6. Latex gloves.

Sample Procedure

1. Put on latex gloves.

2. Using the hexane washed forceps, remove a gauze pad from the protective packaging.

3. Place the gauze pad in a glass vial.

4. Add approximately 5 ml of pesticide grade hexane to the vial.

5. Allow the gauze to absorb the hexane. The gauze must be dripping wet.

6. Using the hexane washed forceps (or pliers), pull the "gauze wipe" from the glass vial.

7. Properly dispose of the excess hexane.

8. Quickly place the dampened gauze pad on the sample area defined by a 100 square centimeter template..

9. Wipe the area (firmly) in a horizontal motion (as if painting the area), then flip the gauze pad over and wipe in a vertical motion.

10. Place the gauze wipe sample into the glass vial from which it was removed. Label the vial.

11. Wash the forceps (or pliers) with hexane to decontaminate.

12. Complete the chain of custody form and send the samples to the laboratory.

Quality Assurance/Quality Control

QA/QC must be maintained throughout the sampling program. Only properly trained technicians should collect samples. Extreme care should be taken to prevent contamination during sampling. A new pair of gloves must be used for each sample. Keep sample vial closed unless sample is being added. Do not touch the inside of the container. Do not send oil and wipe samples together. Use separate shipping packages. The samples do not need to be cooled during shipping.

Appendix E
Equipment Cleaning Procedure

Safety Precautions

Before a piece of equipment can be cleaned, it must be disconnected and disabled in accordance with standard Energy Control and Power Lock Out Procedures. All energy sources including stored energy must be removed prior to cleaning.

Do not attempt to clean equipment that is in service or still connected to power.

Protective clothing, in addition to that specified by general plant safety procedures (i.e. safety glasses, safety toe shoes) is required during cleaning. The cleaning contractor shall have a written health and safety plan appropriate for the expected operations including measurements for determining the need for more stringent levels of protection. The minimum allowable protective clothing shall include:

1. Plastic face shields
2. Disposable Tyvek coveralls (DuPont/saranex 23-P or equal)
3. Impervious rubber boots (neoprene, viton, or equal)
4. Impervious gloves (neoprene, viton or equal)

Additional protective equipment may be required for some tasks. These contingencies should be included in the health and safety plan.

Required Equipment

The following equipment will be required for use during cleaning procedures:

- Shop vacuum
- Lint free absorbent towels
- 6-mil polyethylene sheeting
- Assorted scrub brushes
- Waste disposal drums
- Cleaning fluids such as Knights Super Kleen, Simple Green, Aquanex MC, Zep Formula 50, Zep Big Orange or equal
- Aluminum duct tape
- Oil/water absorbent Speedi-Dry compounds

Set Up

1. Put on protective clothing.

2. Test oil and grease reservoirs prior to draining from the unit. If PCB's are found in the oil, fluids or greases at a level above 50 ppm, do not attempt this cleaning procedure. Notify EHS immediately.

3. Inventory cleaning equipment and supplies. Set up sufficient cleaning materials to completely clean the unit.

4. Vacuum and clean the floor around the base of the equipment.

5. Place the item to be cleaned on a plastic liner with berm. If this is not possible, place plastic on the floor around the base of the unit and cut to fit closely around the base. Tape the plastic to the floor at the base of the unit and berm the edges, if possible.

Cleaning Procedure

1. Provide proper signs and barricades for the cleaning area to control access.

2. Pre-clean the entire piece of equipment to remove all loose dust, dirt, scale, etc. using a shop vacuum designed for solid material, supplemented by scraping, chipping, and spot cleaning with solvent or detergent to remove encrusted materials.

3. Apply the cleaning solution to each surface of the item via a mist, aerosol spray, or cloth soaked in the cleaning solution. Control the application so that little or none of the cleaning solution puddles or runs down to the floor. Make sure that all surfaces are wetted. Use scrubbing brushes, if necessary, to loosen any visible dirt, stains, grease, etc. and then wipe down all surfaces with clean absorbent towels to clean and dry. For large items it may be appropriate to clean the equipment in sections.

4. Rinse the equipment by applying and removing water similarly to above.

5. Repeat steps 2 and 3. The item should be clean and dry.

6. Use the shop vacuum to remove all loose material from the plastic sheeting on the floor.

7. Remove all plastic sheeting and tape from the floor around the unit.

8. Completely cover the unit with polyethylene sheeting and secure the sheeting.

9. Update the equipment tag and log.

10. Before leaving the area where a piece of equipment has been cleaned, a final check should be conducted to make sure all discarded materials including paper towels, plastic sheeting, disposable gloves, etc. have been picked up and placed in a properly labeled drum.

11. As employees leave the cleaning area, boots and gloves must be left behind. At the end of the day all PPE must be cleaned and stored on-site. No contaminated clothing or equipment will be permitted to leave the site.
12. Equipment that contains oil reservoirs should be shipped empty. However, fresh grease can be placed in fittings and equipment surfaces may be treated with a corrosion inhibitor.

Handling and Disposal of Waste Materials

All liquid and solid materials, including spent detergents, rinse waters, disposable clothing, residues from scraping and vacuuming, used cleaning tools (including the vacuum), paper towels, plastic and any other wastes generated during cleaning procedures, are to be collected and stored in DOT approved drums. All drums shall be properly marked, labeled, stored and disposed in accordance with existing site waste management procedures.